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From Pasadena to Santa Barbara and Back

By Henry Chisholm



THE moment I decided to come out to California this winter, I discovered that from no one could I learn the exact condition of the roads there from an automobiling point of view, the result was I brought my machine to California as an experiment. Never was an experiment more successful. I have ridden about 1,500 miles around Pasadena and Los Angeles, Pomona and Santa Barbara, and my experience has proven that the roads are far better than I had any idea they would be. The condition of the California roads in general is very much better than that of the roads in New England, while the Pacific coasters having not become possessed with the idea that automobiles have no right to exist are far more hospitable. All the inhabitants along the country roads will do anything to assist you in any way imaginable. After touring around southern California for a while I decided I would go to Santa Barbara, a distance of about 130 miles from Pasadena. It was the general idea among the natives that the roads between Los Angeles and Santa Barbara were unfit for automobile touring, but despite this four of us made up our minds to take the trip and to see for ourselves what the roads were like, having been unable to obtain the information regarding the roads en route to Santa Barbara in any other way.

The party, which finally left Pasadena at 8.15 A. M., consisted of my sister, Miss Josephine Chisholm, Miss Blackwell, of St. Louis, and Mr. Parmlee Herrick. The trip of 350 miles was made in a Packard touring car, Model F, and was accomplished without the

slightest accident
tourists or the ma-

We took the
over the Arroyo
Eagle Rock to
getting over the
condition of the



or damage to the
chine they rode in.
well known road
and past the famous
Glendale. After
hills the excellent
roads began to

make us think that we were going to make a record trip to Santa Barbara. The morning was bright and clear at the start, but as we got up the valley toward Fernando, a wind coming from the northwest soon made us think that old Boreas had deflated all of his wind bags and turned the contents in our direction.

The route to San Fernando and to the tunnel of the Southern Pacific beyond, was all up grade, so especially fast time was impossible. We arrived at the tunnel, however, at 10.05 A. M. Here the ladies seemed to suffer much from the cold. This was not to be wondered at, since the wind was blowing at the rate of 30 miles per hour, while we were going about 20 right into the teeth of the gale. Each of us men wore two overcoats, while the ladies, with their furs and heavy clothing, wore two or three veils apiece, while we men wore goggles to protect our unveiled countenances.

The distance to the tunnel was about twenty-five miles, and after we had finally reached it, the steepest grade any of us ever negotiated was encountered. This grade came where the road goes over the mountain. The going was not bad up to two hundred yards of the top, but when this point was reached the incline appeared to be about 45 degrees.

Two of the party got out as soon as we struck the steepest place, and shortly after the third one got out. For about two hundred feet the only way the machine would go ahead was to first back it down sideways across the road, then let the engine go at full speed and suddenly throw in the last clutch, and at each of these attempts the machine would gain about twenty or thirty feet.

With patience, ingenuity and a good motor we finally crossed the divide.

The descent was very steep, but not nearly so bad as the ascent. We met a party of colonists at the bottom of the hill, who were camping, having given up the idea of going any further against the gale that was blowing, but that never daunted our party.

We then followed on the road to Newhall, arriving there at 10.30 A. M. The road from there to Saugus was very good. Then

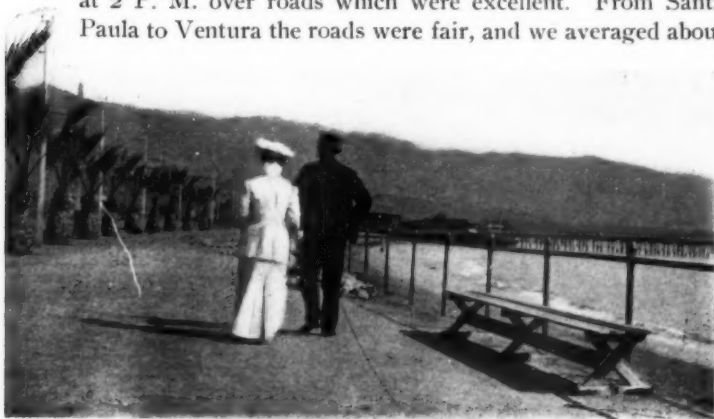


HOW THE NATIVES REGARDED US

on to Piru, on over a road where we went through several fords which had about two feet of water in them. At this point of our trip we encountered what I think was the most unpleasant part of the entire ride. The road wound its way along the lowlands of the river, and several times we had to go through alkali swamps, the bushes and undergrowth of which, as they tapped the mud guards, sounded as if we had a lot of tin cans tied on behind us. This alkali swamp did not delay us, although we thought at one time that before we could get through it we would be compelled to wrap the rear tires with rope to prevent them from slipping.

At Piru we stopped for fifteen minutes to eat a little lunch, which we had taken along, and also to inquire about the road. Luncheon and inquiries both finished, we then went on to Filmore, finding the intervening roads in excellent condition. We forded several streams with about two feet of water in them with no difficulty. By this time the wind had gone down, and its going was a blessing.

The road then took us to Santa Paula, which we finally reached at 2 P. M. over roads which were excellent. From Santa Paula to Ventura the roads were fair, and we averaged about





ONE OF THE HOTELS

seventeen miles an hour, arriving at Ventura at 3 o'clock. Here we stopped for about fifteen minutes to inquire about the roads. Up to this point in our trip we had made no stops at all on account of the machine, everything about it running smoothly and keeping cool.

At Ventura we found there were two roads to take us to Santa Barbara, one by the beach and the other by the Casitas Pass. None of those questioned concerning the roads seemed to know what an automobile required in that direction, so we chanced and took the beach road.

Just after leaving Ventura, we forded several streams, the deepest one of which was the Ventura River, in the middle of which the automobile stopped dead, the water being over three feet deep; fortunately there was no current and that was what saved us.



SENDING A TELEGRAM FROM SANTA PAULA

A number of the kindly-disposed citizens of Ventura had followed us up to this point with the expectation of seeing us get stuck. A small express wagon drove up alongside and the rest of the party climbed into it and were taken across to dry land. Then the wagon was backed up and a rope fastened on

the front axle, and the machine was almost out of the river when the horse started to balk and would no longer supply the extra horse power we were so much in need of. Failing to convince him that he should do this, we had to unfasten this wagon from the machine. Just as we had done this a larger wagon with two obliging horses



THREE OF US

came along. The new-comers were hitched onto the machine and pulled us out upon dry land, but we had been delayed about an hour through it all. The water had splashed onto the tremblers, and it had also found its way into the cylinder. These all had to be dried before we could go on. We went on our way over fairly good roads, and some places, where the sand was very deep, straw had been strewn, with the result that the going was not at all bad. Soon, however, we were forced down onto the beach, owing to the fact that the Southern Pacific Railroad had taken the old country road and left practically nothing but the beach for any other form of traffic.



THROUGH PRIMITIVE TOWNSHIPS



THE OTHER ONE

Reaching the beach we went along finely for about eight miles, the tide being low. Here we were compelled to go way from the hard beach, with the result that we stuck fast in the deep, dry sand above tide line. Promptly thereupon the rear wheels of the vehicle sank into the sand almost up to the axles, and once more we were beautifully stalled.

On a side hill plowing was a farmer, and we pressed his team into service. Getting out all right, we went on for three or four miles further, when we were again compelled to go out upon the beach, and were stuck once more in the dry sand. By this time it was getting dark, and as there was no human being within five miles of us, we did not know what to do. To add to our discomfort it had grown quite cold. With no help in sight we decided to take our blankets, coats and satchels up the bank a short distance, sit down in the shelter of some sand dunes and wait.

We were going to wait for the train that arrives at Santa Barbara at about 11 o'clock, when all at once we heard a whistle and saw a headlight of an engine coming from Santa Barbara.

We had taken the lanterns from the machine, and had kept one lit on purpose to flag anything that might come along. We swung the lantern right across the track, and, luckily for us, the engineer thought there was a broken bridge or mishap ahead, and brought the engine to a stop. The train turned out to be the limited, and we got on in haste. The conductor was furious, but as soon as he saw there were ladies in the party he said it was all right, and all of the passengers thought it was a great joke. So we went back to Ventura on the train, leaving the machine on the beach about 100 feet from high tide. We passed the night in Ventura, and were very comfortably provided for.

The next morning we took a spring wagon and drove back to where





AT SANTA BARBARA

the machine had been left, thinking that with the assistance of the team we could get over the remaining distance, about a mile of deep sand, when we would strike fine roads straight to Santa Barbara. At a point just south of where the Rincon goes into the ocean, there was a point of rocks and boulders two or three feet high coming out to the beach. We decided it was impossible to go over that and turned back. With the assistance of the team we finally got the machine out of the sand where it had been stuck over night, and finally reached Ventura at 4.30 P. M. with no further trouble, the team helping us where we had been stuck before.

We filled the tanks with gasoline and started for Santa Barbara, via Casitas Pass, at 5 P. M. The road up to the beginning of the pass was excellent, but here we had to ford three little creeks, and once more we got stuck, the water splashing up and short circuiting the tremblers. We dried them and then, by climbing on the reaches, started the machine, and then began the ascent.

The sun was just setting, and the views and coloring on all sides were exquisite. We had gone about a mile or two up this pass when we started to go down hill again, and all thoughts of hill climbing were ended. Passing several ranches we soon found out the grade was about ten miles longer. Then we began the real climb, the summit being about 2,600 feet above sea level. The beginning of the pass is probably about 400 feet above the sea level, and in five

miles we had climbed 2,200 feet, or an average grade of 8.3 per cent. for five miles.

It was dark when we reached the summit of the pass, and the lamps and searchlight were lit. The descent was exciting and, some would probably think, dangerous. We had gone down grade for about half an hour, and then the road began to ascend once more. We are all about tired of hill climbing, when, without warning, we made a sharp turn and the lights of Santa Barbara came into view. Here we all rejoiced, for had we not seen the lights at this point another half hour of hill climbing would not have been to our liking. During all of the climb the machine never faltered once. The water which cooled the cylinder had only evaporated about a pint on the entire trip, which proved we could climb hills all day long and not injure the machine in the least.

We finally reached the bottom of the pass, and from there on to Santa Barbara the roads were ideal. By this time it was pitch dark, but with the aid of the searchlight we could move along at about twenty-five miles per hour. We arrived at Santa Barbara at 8.15, the machine and everything being in excellent condition, and all of the party feeling in high spirits. Our friends were pleased to see us, as they had been telephoning all over the country to find out where we had been for the two previous days. The trip up from Pasadena would have required only ten hours had we taken the right road at Ventura.

The next morning we went over the vehicle and found everything in perfect shape. The only thing that was done to the machine was to clean out the gear case, which had been filled with water, in the deep stream when we were stuck, but this had not injured the gears in the least.

The trip back to Pasadena was not so exciting, although we enjoyed every minute of it. We left Santa Barbara at 9.05 A. M. and arrived at Ventura at 12.35, having gone up the Casitas Pass. From Ventura we went to Santa Paula, arriving there at 1.25, a distance of fifteen miles. We rested at Santa Paula about twenty minutes, and then went on through Fillmore, Sespe and several other small villages, arriving at Piru at 2.50 P. M. At Piru we rested ten minutes, and then went on to Saugus and Newhall, where we arrived at 4.40. If I should ever go down this side of the hill again I would not fail to tie a good sized log or something of this sort on behind the machine, because the hill is so steep it is impossible to keep from going too fast over the exceedingly rough and steep

roads, which do not permit of such performances being done with safety.

We left the tunnel at 5.25, and from there to Fernando the roads were fine, a little bit down grade, with a surface better than many boulevards. We arrived at Fernando, a distance of about eight miles, at 5.45; from there on to Burbank the roads were perfect, but as it was getting dark we did not dare to go any faster, being satisfied to make this eleven mile run in twenty-seven minutes. We arrived at Burbank at 6.15 and, to be on the safe side, filled the tanks with some more gasoline, and left at 6.30, arriving at the top of Scoville's Hill and Grand avenue at 7.15. The total time from Santa Barbara was ten hours ten minutes, out of which should be deducted one hour and ten minutes for various stops along the road. These stops or losses of time consisted of fifteen minutes in the morning, when we lost our way on the pass; a stop of fifteen minutes at Santa Paula to telegraph and to rest, and about every hour or two we stopped for four or five minutes to examine the different bearings to see that they were not heating; then the rest at Newhall of ten minutes, and fifteen minutes at Burbank, when we filled up with gasoline and lit the lamps—so that the actual running time from Santa Barbara to Pasadena was made in less than nine hours.

Should we attempt the trip again we could lower this time somewhat; but, considering the hills, which are impossible to climb at more than four or five miles an hour, we did well enough. The sights and views could not be enjoyed at all had we went much faster.

Our trip to Santa Barbara was the most enjoyable one I have ever taken. The troubles we encountered, the experience of flagging the train and our almost camping out at night, were all easily worth a trip to California from the East to have enjoyed.



New York's New Law

GOVERNOR BENJAMIN B. ODELL in the interest of "practical politics," i. e. the art of catching votes, has signed an anti-automobile bill which gives to the 2,600 unfortunate owners of motor vehicles in New York the most drastic, unfair and uncalled for law which prejudice and anti-progression have yet been able to fasten upon automobiling. Under the law every owner of a motor vehicle in the State of New York must within thirty days and hereafter within ten days after acquiring an automobile file with the Secretary of State a statement containing his name and address, the name of the maker of his machine and its factory number.

The Secretary of State thereupon will issue a registry certificate, with a proper serial number, which number must then be displayed conspicuously upon the back of the vehicle.

The bill authorizes local authorities to establish speed regulations, which are limited, at the minimum, however, as follows:

Four miles an hour when crossing a dam or causeway less than twenty feet in width.

Eight miles an hour within a radius of half a mile from a post-office, or a greater radius if local authorities so elect; when passing in either direction a person driving a horse or domestic animal, or passing a pedestrian in the roadway; when crossing an intersecting main highway and in the closely built portions of cities.

Ten miles an hour when passing a public school during school hours (8 A. M. to 4 P. M.), or church during the hours of service.

Fifteen miles an hour in the suburbs of cities where the houses are more than one hundred feet apart. Twenty miles an hour in the open country, where post-offices, school-houses, churches, causeways, cross-road drivers or pedestrians do not conflict.

A motor must be stopped on request of a rider or driver.

The following penalties are provided for violations: First offense—not exceeding \$50. Second offense—not less than \$50, nor exceeding \$100, or imprisonment not exceeding thirty days, or both. Third offense—imprisonment not exceeding thirty days and fine of not less than \$100 nor exceeding \$250.

For the Fair and Strenuous

Our President, the strenuous Roosevelt, has not warmed up to automobiles to any extent, but the flower of his family, the attractive Miss Alice, bids fair to win the automobile vote for her distinguished

papa and, incidentally, to give the Roosevelt family additional advertising. Miss Alice has shown automobilic inclinations for several moons, and was busily engaged the other day in Washington learning how to drive a machine, and so enthusiastic, or, should I say strenuous, was she in her work that a rude policeman warned her that she was violating the anti-automobile laws of the nation's capital. When her father reaches home from his swinging around the circle, Miss Alice says that she is going to ask him to buy her an automobile. I hope she will not be put off with a bronco, that four-footed and vicious method of transportation so much admired by her father.

The Man and the Machine

EVERY margin of increase in the speed of the automobile means so much more responsibility for the operator, along with a certain satisfaction in being able to govern his pace by the desire or by the requirements of the day or the hour. There is constant need of good judgment and vigilant nerve to make anything more than ordinary progress on the highway, even under the most favorable circumstances. And when mishap does come—which is usually with sufficient frequency to keep away monotony—the personal intelligence and mechanical resource of the man at the wheel or lever will often enable a damaged vehicle to finish its trip. Or at least to get to a good repair station, instead of sending at once for help, with all the consequent loss of time and the expense and trouble of it.

That the "personal equation" is no hollow phrase is amply proven by the fact that large numbers of expert amateur chauffeurs are cultivating a larger liking for these automobiles which depend the most upon the knowledge and skill of the operator, and the least upon handling by rule, for their successful use, particularly under speed. A premium is placed not only upon mental and mechanical dexterity, but also upon careful and accurate judgment in such practical matters as equipping, cleaning, housing, lubricating and the like. Obviously, then, the automobile can never be a "fool-proof" machine.

Emergencies come on the wings of the invisible wind; and every one must be reckoned with, whether or not it suits the fancy of the moment. An emergency, roughly defined, is a crisis in which a person is called upon suddenly to do the best he can ever do under like circumstances. These crises come to every automobilist in his maturity as well as in his novitiate—perhaps even more so, since he

is likely to be less cautious. These are invaluable for discipline and instruction in the education of the chauffeur. They furnish the ready means of testing the physical powers, as well as proving the service of the senses. Action in emergency discloses the strength or weakness of one's nerves, shows the mental facilities one has, and not infrequently decides in a flash what might not be discovered under average conditions in a lifetime.

"Presence of mind," as the phrase goes, is a quality well worth cultivation. This readiness of summoning one's strength and judgment for instant use constitutes one of the most marked differences in men. The world, even in a commercial sort of valuing, prefers the services of one who is quick mentally as well as physically, because there is almost always a forethought as to the worth of such a man if a crisis should arise. People who are ready to act at shortest notice are often enthroned as heroes by the world, so praiseworthy is their quickness and sureness in the eyes of the multitude. The hired chauffeur who has the ability to decide instantly what is best to be done when the emergency is at hand is the sort of man who should get more pay than the slower fellows, because nature has equipped him to be worth more to his employer.

A crisis is first appalling to every man, and then as likely as not it becomes fascinating. When the mind fully grasps the leading factors in a given situation, it forces the physical powers into co-operation; and then the way out of a desperate situation is pretty sure to have a fervor and glow to it. The multitude in the grand-stand becomes nervous when a racing machine turns a corner at top speed. But in most cases the spectators are more wrought up than the man they are watching. He has estimated the difficulty and the danger of his work, and knows better than they whether he can accomplish his purpose or not. The spectacular side appeals to them, but not to him. He has his wits ready and in use; they are onlookers merely.

Experience is necessary to enable the automobilist to meet the emergencies of the road successfully. The same conditions may never be present in two different cases, and conduct in one must be studied to use in what is to follow. Rashness in emergency is not bravery, because it lacks the essential element of cool judgment. On the contrary it is usually a dangerous exercise of strength or courage. That fear of committing a fatal blunder, which makes men who think and care, pause for an instant before making the decision, is an ingredient of true bravery. Acting first and thinking afterward is the fool's method.

It would be interesting to analyze the mental processes by which, very largely, the long distance racing men contrive to run their huge racing machines at speeds as high as eighty miles an hour in the continental road races. Suppose that before the oncoming brigade a small boy squeezes through the wall of spectators and sprawls out upon the highway. To the chauffeur in the lead it is a mere speck in the distance—with a large problem attached to it. Will that urchin, when he rises to his feet, attempt to cross the road, or will he return to the side whence he came? Or will he lose his head and in the excitement stand where he is? The decision as to what it were best to do must be reached, not through deliberation, or by calm consideration, not in minutes or even seconds, but in a flash. Here experience counts; the master of the automobile measures every line and gesture, and from them reduces a probability of action. There is no slackening of speed; the chance is to be taken. It is all right, too, for the trained chauffeur's divination has again been true to him. It is by such good (and fortunate) work as this that every international long distance race is won.

Nor is this faculty wholly dependent upon the operator being an expert mechanic; it is rather the brain and the nerve that is in him. Many of the famous French racing men have been brought up in the workshops, and have therefore a thorough acquaintance with the practical side of their machines. But the best amateur management does not materially suffer from point-and-point comparison therewith. The former displays more mechanical dexterity; the latter, usually, more tact and more personal resource. This last is the most important of all, for it comprehends all the rest.

Some Vermont Experiences

By James Reynolds

THE very interesting story of Mr. Woolson's in the April issue, wherein he told some of his experiences while automobil-ing in Vermont, reminds the writer of some things he experienced while going over some of the Green Mountain roads two years ago.

At one little town where we arrived at nightfall and were in doubt as to which of the two small hotels the place boasted of to stop at, we interrogated a farmer perched on a load of hay, and who pulled up his horses with wondering eyes at the novelty of a horseless conveyance, with its dust covered, queerly clad pas-

sengers. To the question of the host of the party as to the relative merits of the two hostelrys, the farmer, after cogitating a moment, replied: "Wal, I dunno, p'r'aps ye'd better try the house under the hill. I s'pose it's the best; leastwise they aint nowise bashful about chargin'."

A waitress at one of the Vermont inns where we stopped and where the food, as is still the custom in the country districts, was served in small saucer-shaped dishes or "bird baths" as they have been called, hovered around for some minutes after our party had finished dinner, and finally said: "Have you people finished dinner?"

To their affirmative reply she looked amazed and in a high, angry key ejaculated, "Then why don't you stack?" It was some minutes before she could be sufficiently mollified to explain that it was the custom in that part of the country when people finished eating to signify it by "stacking" the "bird baths."

At another inn, where the proprietress presided herself at the table, and some griddle cakes and maple syrup were brought in at supper, the beaming landlady, who allotted the cakes to the individual plates before they were passed around, took up the first plate and, holding the jar of golden syrup in her other hand, thus addressed the eldest members of the party:

"Will you have your syrup 'round and round,' Mr. Jones, or in a puddle in the middle?"

After Mr. Jones had recovered his equanimity, he replied that he thought he would prefer to have it "round and round."

At still another inn one of the country waitresses became much interested when she noticed our party ate the various portions of their meal in succession. Her curiosity was too much for her and she leaned over one of the ladies of the party and remarked:

"Law sakes. I s'pose you folks course your victuals to hum."

You'll Be Sorry You Spolk

With none of the maker folk,

Is't permitted to airy jolk.

Should you hint that there is

A motor better than his,

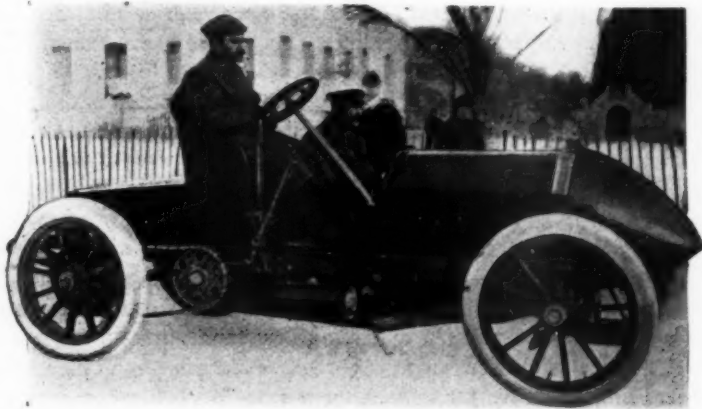
He's liable you one to solk.

"Vibratory Habit"

By R. S. Pelton

SINCE automobiling has become so popular the doctors, true to their training, claim they have discovered various new ailments and injurious effects that result from motoring. The latest investigation by a French physician has resulted in finding, so he says, that automobilists are subject to the "vibratory habit."

Unknown to themselves they develop a general vibratory condition of the body. They become like a human tuning fork, which vibrates at high tension. Dr. Petit gave the French Academy of Medicine the results of his observations, and since then French



BARON DE CATERS' MERCEDES RACING "SHELL"

and English motor enthusiasts have been surprised, when they have complained to their medical advisers that they felt unusually restless and could not account for the reason, to learn that they had unconsciously acquired the "vibratory habit." The medical journals are taking the matter up and soon American doctors will doubtlessly also begin to prescribe for the cure of this strange new disease.

An English specialist has read a paper on the subject before a British medical society. He found, he said, that all automobile drivers were not similarly affected, their natural nervous conditions having much to do with the development of the disease. Drivers who were careful to indulge in moderation, and who did not let their minds run on speed making, were free from any evi-

dence of the disease. But among the enthusiasts he found the vibratory habit was rapidly developing. He declared that in it lay a menace to the future health of hundreds of drivers who refuse to confine their enthusiasm within a reasonable limit.

The disease is a kind of intoxication for movement that is shown in an unconscious, or semi-unconscious bearing of the body, which becomes especially pain, when great steadiness is called for, as for instance, in sitting for a photograph. It is shown also in an over desire for rapidity of passage, as if it were necessary at every moment to overcome time and curtail distances by speed of an extreme kind. The constant impression given is that the sufferer, from this general vibratory condition of the body, must jump into his car and be off, although the weather and circumstances are not opportune for riding. The whole manner bespeaks haste, although there is not the slightest occasion for it.

The French discoverer of the vibratory habit declares that this intoxication for motion grows in the mind by what it feeds on and keeps the heart under the impression that it is always requiring the stimulation of speeding. If the devotee of automobiling thinks morning, noon and night of driving, and the exhilaration of movement, his heart beats faster. Generally the rider is not aware of the influence his mind is exerting on this most important organ, which after a while feels that its normal pulsations are those when the mind is thus intoxicated with the thought of motion.

The English observer says that it is no false inference that this craving or desire for movement is very much like the craving or desire for alcohol, and its effects through the heart and circulation are much the same in the end. Of course, this intoxication is not accompanied by the other serious effects of alcohol upon the human system.

Going into the pathology of the alleged disease the original discoverer remarks: "Although it occurs most frequently with inexperienced riders, it often attacks others who have, under ordinary circumstances, reasonable control of their cars. Under certain conditions the passive machine becomes, by a mental perversity of the driver, an uncontrollable and active agent of an apparently unavoidable accident. The vehicle is thus forced to run into the very danger that the rider would otherwise avoid, and a direct collision is inevitable in spite of the frantic efforts to prevent it. The phenomena are to be explained, however, on well-established psychological principles. It is purely and simply a perversion

of determination on the part of the rider entirely uncontrolled by any other counteracting agency. The one element of safety for a frightened horseman is the possibility of there being some little remaining sense in the horse, some instinctive power on the part of the latter to avert collisions, independently of the demoralizing occupant of the saddle. On the other hand the runaway automobile becomes an intensified exemplification of the rider's loss of individual control. It would appear to resemble stage fright in many essential particulars."

This scientific explanation of a nervous novice's inability to properly control an automobile should be a source of great satisfaction, not to say consolation, to the unfortunate beginner in the art of automobiling when he gathers himself together after an encounter with a beer wagon and wonders how it all happened. It will doubtless serve the purpose of a whole bottle of arnica.

Told by the Liveryman

By Rufus E. Billings

"**Y**OU notice," said the truthful proprietor of the stable to the feeble-minded man, who in an earnest endeavor to prove that a fool and his money really are quickly parted, was paying him \$45 a month and "extras" to stable a horse, "that there is still to be seen about the street, now and then, a horse? I understand that there is even yet quite a demand for horseshoes, and the making of them still enables a few men to provide a living for themselves and their families. I am such an old fool that I have just renewed my lease for this stable for another five years, because I believe that the horse will not have entirely disappeared before that time. Even when he does go, I ain't so sure we will have nothing but automobiles to take his place.

"I had a man in here only yesterday with the plans and drawings of a steam horse; one planned for livery purposes, not for truck hauling. This steel animal was, in fact, designed for saddle use, and the inventor told me he would guarantee that, what with the chances of its blowing up or breaking down, the rider of the steam horse would get fully as much exercise, excitement, danger and expense out of it as he could from a natural horse, while the pleasure of controlling the gasoline gee-gee would be far greater than with the oat-fueled one."

"As near as I could make out from what he showed me and said to me the steam animal steers with a wheel like a yacht,

the tiller ropes being carried forward on either side to a small wheel set crosswise over the horse's shoulders in front of the rider. As the rudder of a yacht throws the vessel's stern to starboard or to port, so the contrivance on this steam horse threw his hind legs to right or left, and so changed his direction. Steam gauges were handy on the side of the invention's neck; brake there, too, and backing lever, and the gait controllers, also.

"This horse was planned to walk, trot, canter and gallop; inventor said he's going to bring out a horse with all these gaits, and single foot besides, in the spring—if he gets the capital necessary to build it.

"The inventor allowed that while the cost of his steam horse may at present be a trifle higher than what you would have to pay for a real flesh and blood saddle conveyer, yet when the life of the steam charger is taken into consideration, it will be found to be really cheaper; and as to the relative amount of fun to be got out of each the inventor says there is really no grounds for comparison, because the steam horse has the other beaten a mile.

"Think," he said, "of a race with, say, ten steam horses driven by ten expert engineers. Would there, or would there not, be likely to ensue a scene of animation? And I was obliged to confess, even though I am in the livery business, that such a race certainly would contain at least the ingredients of a lively time. To tell you the truth, I was rather impressed by the man's plans, and he's going to bring one of the horses around—when he builds it."

"Really!" observed the listener, who had fixed his watery eyes upon a picture of Washington with an intensity that almost brought a blush to the tanned and toughened cheek of the liveryman.

At the Athletic Games

"What a wonderful jumper that man is! But why do they keep tooting that auto horn while he is making his jumps?"

"That's Westbury—he's from over in Long Island, and he can't do his best unless he imagines he is getting out of the way of a 40 H. P. touring car."

Very Highly Educated

"She is an accomplished linguist," remarked the man in the checked cloth cap. "She speaks three languages—English, motor and golf."

The Maid, the Motor and the Man

By Emeline Clancy Cushman

"I SHALL go to South Africa," he said, gloomily. She made a little gesture of vexation. She drummed on the carpet with a pair of small, strong heels.

"For goodness' sake," she cried, petulantly, "try to do something less hackneyed. Nowadays every Englishman who thinks he likes a woman who doesn't happen to be prepared to marry him at a moment's notice goes off to South Africa."

He turned upon her sturdily.

"Indeed! If you imagine I'm going there heart broken you're mistaken. I'm going there to make my fortune. I shall take that post Levy offered me on his place. I shall combine it with doctoring, and between the two I might make money."

She had turned toward him with rather a serious expression.

"Really?" she said, slowly.

"Really," he said, emphatically.

She did not look so confident as she had looked some minutes earlier. There was a little whitening of her cheeks. He was a fine looking, well-set-up young man, for whom any woman might have cared. But he had committed that most foolish of love's many blunders; he had proposed to a woman without having given her time to know whether she cared for him or not.

Impetuous of disposition, he had fallen in love with her at first sight. She was of calmer temper; but although she was not prepared to accept him in a moment, neither was she prepared to lose him in a moment. This notion of South Africa affected her more than she was able to explain to herself.

"To make a fortune is a very poor ambition for a young man," she said, loftily.

"Possibly," he agreed, "but the fortune made is a very comfortable condition for an old one."

"How clever you are," she said, with a rallying smile.

But he did not rally.

"You'd far better remain here," she resumed, glancing sidelong at his rueful countenance. "You're getting on well in your profession. Since you set up people seem to have fallen ill just for the sake of adding to your practice. In old Dr. Jarvis' time nobody was ill. Now it seems as though the lease of everybody's constitution had suddenly fallen in."

"Oh, I'm doing well enough," he said, dejectedly. She was so serious and yet so gay, so prudent and so charming. The red lips from which her wisdoms fell seemed made for kisses. Her curls were such a charming golden frame for common sense. Yet where was the use of his doing well, or of her lips and curls, if these were to fall to the lot of some luckier man?

He could not bear to think of it. He stifled a groan and took up his hat. She stood there in her fresh print frock. She wore a charming apron, with lace frills and pockets. She was a delightful young farmer. When her father died, some two years earlier, she had taken up his work, and was doing it successfully.

The scene had been enacted in the pretty parlor of the old farm house in Devonshire. Through the opened windows came the perfume of roses and syringa, and a tangle of sweet lilies. Bees hummed, birds twittered and sung. Life was a poem. He stifled a groan, and taking up his hat moved some paces toward the long French window.

"At all events, you will not be leaving us just yet?" she said, a trifle persuasively.

"Not till next month," he responded gravely, and with the air of a man who has made his final plans. He was guilty of a second of love's blunders. "No" to him spelled nothing but "No!"

"Next month?" she cried, dismayed.

"Oh, what madness it is to let another person so affect your life."

"It might have been the sweetest madness in the world," he said, ardently.

"Your lovely new motor car?" she challenged him. "You cannot take it to South Africa, and you will never have the heart to leave it."

"I had it built for two," he said, and added, "I was a presumptuous ass."

He bowed his good-bys and escaped across the daisied lawn.

She flung herself into a chair and started weeping.

* * * * *

He had made his rounds and, returning, fell into a bitter reverie. Now, although a motor car is as safe as any other form of locomotion, it is as well when driving one to keep the hand and mind upon the steering wheel. Knowing the straight clear road of some two miles before him, he dropped his head absently upon

his chest, and in the dusk and silence of the scented woods through which his way ran, groaned out his desolation.

Jack, his younger brother, who had just qualified, and was looking for a post, should take his practice at once, leaving him leisure to pack his traps and be off in a fortnight to Johannesburg. The fresh surroundings, the new, rough life, would give him something to think about besides golden hair, blue eyes and the dearest, sweetest, gayest spirit in the world.

He looked up for a moment. There was a hedge which marked the furthest limit of her small estate. Yesterday, at sight of it, he had broken into whistling. To-day——! He choked. A mist swam before his eyes. Two minutes later he pulled himself together. His road branched at an angle from the straight broad highway he had been following in a dream. His hand gripped the steering wheel, his eye marked hawthorns overhanging the corner of the lane down which he must turn; but his mind was in a certain room in the pretty, well beloved farmhouse to the right of him.

Just as he turned into the lane, with wandering, dejected wits, a woman picking blackberries from the hedge, a baby hanging on her arm, suddenly shrieked and stood still, panic-stricken in the middle of the road.

Either he must run her down or he must ride into a bank. He chose the bank. He swung round his steering wheel, shut off the engines, and prepared for—anything.

Dorothy Lentham, musing in her garden, heard the well-known *teuf teuf*, guiltily blushed, and wondered how she would be able, without undue injury to her pride, to persuade him from wrecking his future in South Africa.

Then came a sudden scream, a masculine exclamation—a thud—a crash and rattle, then—silence.

Hatless, breathless, blanched of face, she ran down the garden and out through a rustic gate into the road.

The gayly painted car stood on its hind wheels apparently uninjured, its front wheels raised and embedded in a grassy bank. Dyson, who had been thrown violently out, lay senseless in the road. The woman wrung her hands and wept above the scene. The baby howled and slapped its mother's face.

* * * * *

He came to his senses with a touch of a light hand on his brows. He opened heavy eyes and peered about a darkened room.

"John," he demanded of his assistant, "what the deuce is up?"

But John was not there. He thought he must be dreaming still when the voice which had haunted him sweetly and mercilessly for many a week besought him to be quiet.

"You had an accident," she told him, with the sound of tears in her voice.

"Ah!" he said, and remembered. What a confounded nuisance! After all, he would not be able to get away as soon as he had hoped. Dazed as he was, that necessity to escape from the scene of his misery possessed him.

"Any bones broken?" he murmured.

"No," she said; "only brain concussion. But you must keep perfectly quiet, perfectly still, Dr. Edwards says."

After a minute:

"Miss Lentham," he said, feebly—he was conscious of being able, had he wished, to speak more strongly, but the words sounded better uttered feebly—"would you mind just kissing me once—in case I should—should die, you know?"

There was a pause, which seemed to him an age.

Then he felt the red lips softly and rather timidly on his. Concussion seemed to have shaken discrimination into him.

"Good heavens!" he cried, in a wonder of amazement, "do you—I say, Miss Lentham, after all, do you—by Jove, I think, after all, I'll get well!"

"But you won't go to South Africa," she wailed.

"Not if I know it!" cried he.

The motor car was so little injured—having safely and softly embedded itself—that not three months later it took the couple for whom it had been built honeymooning all over Wales.

Right in Line

"Yes," says the individual with the bulging brow and the restless eyes, "I am the man who invented indoor baseball, indoor tennis, indoor croquet and indoor golf."

We view him with undisguised amazement.

"And," we venture, "are you studying up any more inventions?"

"Oh, yes," he carelessly answers, "I am now completing a simple form of indoor ballooning, and next year I will have my indoor automobile touring on the market."



The Tour of the Lammmergeier. Part IV

By Ned Willson

(Begun in March Issue.)

BURTON turned his head slightly and smiled but said nothing. I turned around to look at Jack and found him with set teeth and pale. For myself I must say that I felt some misgivings, but don't believe that I was so much frightened as I was surprised. I had the advantage of Jack, however, that I had once celebrated an English bank holiday by an ascension from the Crystal Palace grounds. However, in this case the sensation was different, and found me unprepared. In the balloon we had traveled *with the wind* at the rate of about ten miles per hour. While now it was a case of cut the wind at nearly six times that speed.

Unlike going up in an elevator, there were no qualms as if a weight was suddenly sinking within you, but like in a balloon ascension, the ground seemed to fall away and the machine to be floating along on a level course. The sensation was a strange one to those accustomed to the gone feeling produced by an elevator. It was somewhat like going down or up the shaft of a mine in the dark where the dim light of the miner's lamp is scarcely sufficient to show the walls of the shaft as they seemingly rush by. This difference appeared to show that elevator sickness is really a trick of the imagination like that produced by the magic swing in which the walls move but the swing is stationary.

I watched the ground below for a few minutes as it flew by more and more slowly on account of continued ascent and because the angle of vision was widening. The earth below seemed like an enormous relief map, upon the surface of which were dwarf-like creatures with the functions of human beings. Everyone seemed

to crawl along. Even a cyclist, bent low over his handle bars, seemed to be making scarcely speed enough to keep himself upright. Here and there could be seen groups of people shading their eyes as they watched our flight and every little while there was a shout and little groups of men and women paused in their work and stood with open mouths. We passed a school house where the children were out at recess. Their shrill cries and the barking of a small dog reached us with remarkable distinctness, especially when we were nearly above them. Soon after we passed the school house, the earth gradually grew dimmer and was then hidden from sight by a fog which surrounded us. The air grew damp and chilly and I soon recognized the fact that we were in cloudland.

"Brrr!" I chattered. "Take us above this, Archie, so we can get the sun."

"All right, Ned," he answered, and gave a turn to a short lever which changed the angle of the machine about five degrees. In a few minutes the cloud bank was below and the warm sun beating upon top of the cover soon set our blood in motion again. "You must have been up in the air before," he continued as we reached the sunshine, "I thought that this would be a new sensation for you."

"The sensation is new enough, my experience was with a balloon in a ten-mile breeze only."

"Well, how do you like it, anyway?" asked our host.

"Fine," I answered. But Jack was silent. "Hello," I said, "what's the matter with you, Jack?"

"Nothing," answered that worthy. "I was just cussing myself for being a fool, that's all."

"Well, what's the matter with you?" I asked him.

"If I had followed my own convictions I should have guessed right this morning after what I saw last night."

Instantly Archie was all attention. "What under the sun did you discover last night?" he asked.

"I got past your dark cloud and saw your disappearance act."

"The deuce you did," was Archie's rejoinder. "So you were in the plot, it seems?"

"There is not so much use of beating about the bush," said Jack. "We might as well be straightforward about it. Burton, you know very well who has been trying to find you out, so you might as well confess."

"Yes," I put in, "the time for keeping the matter a secret has

passed, and we might as well confess that Archie got about the best of the bargain."

"I confess, boys, that I found you out a night or two ago, but there was a pesky fellow trailing me on a bike a few weeks ago that I was not so sure of."

"Oh, that was your old friend, Ned, here," said Jack.

"Indeed." I was afraid I had seriously hurt the poor chap when I gave him a few points one evening, for I did not see him again."

"No, I was not hurt, although they ditched me," I answered.

"Well, and how about what Harvey saw last night?"

"I made a dive through the smudge and saw the machine leave the earth, but Ned called me several kinds of names and I began to fear that it might be imagination after all. If it had not been for his confounded ridicule I should have guessed the purpose of the machine this morning."

"Why didn't you, then?" asked Archie.

"I should have done so if it had not been for Ned here."

"That's right, you lobster, blame it all on to me," I answered.

"Don't you fellows get to quarreling. The first thing you know I'll make you both get out and walk."

"This is about the poorest walking I ever saw, so I guess we had better stop," said Jack.

During this conversation we have kept above the clouds and about 2,500 to 3,000 feet from the earth. Archie had provided a bounteous lunch, and his flow of talk about his various experiments leading up to the present invention and especially his trips to the old country kept us interested for some hours. He had visited Lillienthal, in Berlin, and having witnessed his famous experiments at Gross Lichterfelde, he had crossed the channel to London, near which city Maxim was building his monstrous four-ton aeroplane. In fact he had spent some time with the latter gentleman at Baldwin's Park, near Bexley, in Kent, where he was courteously received and given valuable information. In Paris he had obtained some information by disguising himself as a laborer and thence he made a hazardous trip to Russia to discover the doings of the government experiments there. In this country, Chanute, of Chicago, and Professor Langley, of the Smithsonian Institution, had willingly supplied him with data, and he went vigorously to work even when at college. His final trip to interview the later experiments of the French and the Germans and also to refresh his memory in regard to what he had learned before was the

one upon which I had met him, both going and returning. So interested had we become that when I looked at my watch it was three o'clock. Almost unconsciously I had stolen an occasional glance at a compass which rested in a binnacle at Burton's right, and had noted that the course was practically a straight one and that we had been flying southwest by two points north. I immediately realized that we must be pretty far from Pannington.

"Say, old chap," I asked Burton, touching him on the arm, "where are we? Seems to me we are pretty far from home for a short trip."

"I'll show you in a moment," was the answer, and with that we gradually dropped through the clouds.

As we emerged below, we saw before us in the distance a city, bounded on all sides by water and with a sky line like a comb with many broken teeth. On the opposite banks of the various surrounding bodies of water were smaller cities and at one point the water was spanned by two enormous bridges which were quite familiar in their outline.

"It's New York!" cried Jack and I together.

"Quite right, boys," said Archie, "and I'll tell you what I am going to do. I have wagered \$5,000 with the Aero Club that I would go from Pannington to New York, take on a fresh supply of gasoline and return without stopping. You are to be my witnesses, as I was to carry two with me. Now here is my plan. From the top of the Park Row building there should be flying a captive balloon to which is attached on a 200-foot cord a ten-gallon can of gasoline. About twenty feet above the can there is to be a large hoop, and through this I must thrust the beak of the Lammergeier, thus catching it on the fly, as to stop would mean a descent. I am to have five trials at the hoop, but as I have practiced it at night several times, I feel quite sure I can make it at the third or fourth trial. There is the balloon to the north of Park Row."

As we approached the city we could see the roofs of the buildings and all the streets in sight of the balloon black with people with telescopes and binoculars pointed skyward. Archie had thoughtfully supplied us with excellent glasses so we could watch the proceeding very nicely. An instant later and a shout from thousands of throats rolled up toward us, as we came into view of City Hall Park. Archie gripped the wheel firmly and with the front port open for a better view he slowed his engine until we began to drop and finally settled into a horizontal plane about fifty feet below the hoop. Then he

began to circle about until one side of the circle approached nearer and nearer to a point just beneath the balloon. The can was swinging somewhat in the wind and this made his aim uncertain. Also the constant variation in the breeze made the balloon rise and fall, sometimes with a dive and a jerk. It was necessary to carefully note these variations, and this was what made the feat so difficult. All danger of fouling the propeller had been eliminated by a carefully designed guard. Twice he made the attempt, calculating to a nicety the swing of the can, but the treacherous breeze each time carried the balloon up before he could change his course. The second time the can grazed one of the masts. On the third attempt Burton waited until one of the spasms of the wind seemed about to let the balloon down, keeping his machine in reach by careful tacking, as he could not rest, but must keep moving. As he approached the hoop it seemed to stand still, when a sudden gust caused the balloon to dive and threaten to leave us far above our prize. But with a quick movement the wily operator released the clutch stopping the propeller and at the same time threw his diving rudders up and depressed the front edge of the aeroplanes. The machine almost turned on end, but it caught the hoop nearly in the center, and by reversing the rudder we were soon right side up again. The sudden strain broke the cord attaching the hoop to the balloon and the prize was ours. The crowd below nearly went crazy. It was worse than at a football game, for the number of spectators was greater. It seems that every paper in the city had learned of it and had flooded the streets with extras. The jam held traffic for nearly three hours.

Jack and I were too excited to talk, but Archie was cool as marble. He slid the grating in the bottom to one side with his foot and bade me take a hook and haul in the can. In the meantime he was circling around the city so that the crowds could see the machine and also see that we had the can. I had to get Jack to give me a pull with the can, but we soon had it aboard and the precious contents draining into the engine tank. I believe that was the only time I ever enjoyed the odor of gasoline.

"Archie, old man," said Jack, as we got the can aboard and closed the grating, "that five thou' is yours sure enough."

"Not by a damn sight," was the rejoinder. "We must reach Pannington first, and that before eight o'clock to-night."

"What then?" I asked.

"Then I want you boys to take a little trip with me. There is said to be a valley in the Rocky Mountains that has never been ex-

plored. It is surrounded by mountains on every side that no one has succeeded in climbing, but it is quite certain that it is inhabited. There is a river flowing underground from the place and from time to time crude carvings have been found floating down this stream. I have still further evidence; but I am afraid that you boys will doubt my sanity if I tell you what it consists of."

We both assured him that we were quite convinced of his sanity and would be glad to hear more. He then continued: "I am a firm believer in telepathy. Not only for short distances but for long ones. At one time I was a skeptic, and then I read a book now out of print, about the careful investigations of the Society for Psychical Research. I made up my mind to find out for myself. My success astonished me, although I went at it after the style of the laboratory and performed my experiments with the most extreme caution. I finally made experiments with seven different persons at distances varying from 100 to 1,000 miles. My most successful assistant was a student who was an amateur balloonist. He is lost in this valley and not only has he sent me telepathic messages but a letter by way of the underground river. I am going after him. Will you go with me?"

"Give me two days in New York to get things ready and I'm with you," said Jack.

"I have still ten days' leave," I told him, "and if it takes longer—well, I'll get lost in the mountains."

"Very well, boys. To-day is Wednesday, and I cannot get started before Saturday, as I must send men ahead with relays of supplies. I want to fly through if I can."

We then fell to discussing the plans for the trip to the valley and passed the time away so entertainingly that Archie lost his bearings several times and had to go down near the earth to find them. In fact we went nearly ten miles to the north of Pannington and were leaving it rapidly behind when I heard a fire whistle from a neighboring town, a sound with which I was familiar, and so got our bearing. Just before we reached Melrose, the gasoline gave out and the engine stopped. Fortunately we are at a considerable elevation at the time and managed to glide the remaining distance. Archie skilfully guided the machine straight to the grass plot in the center of the circle and the \$5,000 was won.

God made the country, man made the town; the roads between the two are supposed to be devices of the devil.

The Caloric Cruiser

By Mariner J. Kent

IT has happened that the inventor fell in love and he fell deep into it. The object of his heart's desire was a very self-opinionated young woman, and she made her winning hard for him. "I'll have to sprint lively to win out," he said to himself as he left the home of the girl he adored after proposing to her and being, not exactly refused, but put on probation, as it were. As he mused a thought blossomed and elated him. So far each invention of his had been an active promoter of a happy matrimonial alliance, so why should not the



SERPOLLET AND HIS ROTHSCHILD CUP WINNER

good influences extend to him in the present case? He would build an automobile that would outrival any "Red Devil," "Blue Dragon" or "White Ghost" that was ever invented! That would win her, if anything would.

Maria Pettus was a good and a bright girl, and a school teacher as well. Her head had expanded, so to speak, since her work, "The Scope of the Kindergarten," had been published and had been adopted by teachers as a textbook on the subject. Her firm belief was that a man was a nonentity in the world until he had produced something distinctively his own. Whether a mouse-trap or a flying-machine mattered not so long as it was evolved out of the man's

consciousness by his own effort. Her philosophy was not unsound, but it startled somewhat since she looked for like results from barren and from fertile ground. Maria's love for the inventor was real enough, but it was subjective like a pearl in a bivalve, the shell of which the lover could only hope to open with a creation that was wonderfully original, conjured out of his brain.

The inventor went to work on his motor vehicle and made rapid headway. He would have no electric, steam or gasoline affair, but a caloric motor, a red-hot one, bless you! When the new creation was finished it was a queer-looking craft, but it would and did go. The heater was a large one and as the vehicle moved along it resembled nothing so much as an old-fashioned coffin with its foot to the fore. The hot-air chamber was overlaid with a thick covering of asbestos to retain the heat and to prevent the occupants of the carriage from acquiring an overdose of warmth. Above the heater, like a bump on a log, was a seat for two and the various levers. The color of it all was of an inky hue, so in compliment to Maria its owner called it the "Black Cat."

One afternoon the inventor ran his new carriage up to his sweetheart's home, where she was awaiting, anxious to participate in the new one's trial.

"Won't people think it a funeral?" asked Maria, for she had noted the shape of the vehicle with an expression of distaste.

"Certainly not," replied the inventor facetiously, "there isn't any corpse."

"There may be two," responded Maria, doubtfully, but she climbed in and seated herself with a heart for any fate.

There was no reply to the sarcastic remark, for before any could be made they were speeding away. The motor worked like a charm and everything was as serene as mites in a new cheese. Maria was delighted and the inventor was as proud as a country girl without freckles. They were proceeding along a road that led along the right bank of the noble Hudson and were going at a rattling pace.

"Are we not going faster than the law allows?" observed Maria.

"I think we are," was the reply, "and I will slow up a little." The inventor pulled on the lever which was intended to shut off the power, but the lever wouldn't budge. "Holy Moses!" he said to himself, "both of us will be killed," and his heart from its altitudinous perch sank to zero and below. Even if they escaped serious injury the outcome in any event would be the loss of Maria, for she would never forgive him, and life to him without her would be as valueless

as an empty dice box. Personally he did not care to live in the event of disaster, but he must save Maria.

They were now on a down grade and the vehicle was bumping along at the rate of forty miles an hour. Some distance ahead the bank sloped gradually toward the water. "Maria," said the distressed inventor, "I can't stop the machine and I'm going to run it into the river. Be ready to jump with me when I give the word. I'm a good swimmer and will bring you safe to land."

Maria sniffed contemptuously, but prepared for the leap. The steering wheel was sharply turned and the hot-air wonder plunged into the water and sailed on. The great capacity of the hot-air box and the pneumatic tires kept it nicely afloat and it skimmed across the river like a whaleboat. Passing tugs and steamers slowed up to give the wonderful automobile a clear course and tooted their whistles in approbation. The plunge into the stream was made in fear, but the exit from it was one of triumphant joy.

After leaving the river and reaching the highway on the opposite bank the vehicle stopped. Eventually the water had forced its way into the heater and had put out the fire. The inventor dismounted and upon examination found that the refusal of the lever to perform its allotted task had come from a loosened nut which was soon tightened. The inventor mopped out the fire-box, relighted the fire and was soon ready for a new start. As the now famous vehicle moved away the crowd of onlookers that had gathered gave three cheers for the new caloric cruiser.

Little was said on the return trip. The caloric one was on its good behavior, but Maria was engrossed with her thoughts and her subdued lover followed the wise injunction that reads, "When you have nothing to say, say nothing." They essayed no repetition of their aquatic feat in recrossing the river, but were ferried over and reached home without further adventure.

That evening the inventor called on Maria and, having stiffened his vertebra sufficiently, approached the subject nearest his heart with the remark: "We got out of that confounded scrape this afternoon in fine style, didn't we?"

"Yes, we did," responded Maria pleasantly.

"May I now hope that you will be mine, my dear one?" asked the inventor with some trepidation.

"You may," replied Maria proudly, "a man that can make an automobile that will swim like a duck is worthy to be the husband of any woman."

An Out-and-Out Scandal

By Minnie Hoover-Mackenzie

"Meeker and his wife are 'out!'"
So the rumor moved about;
Neighbors were inclined to doubt,
Knowing none were more devout
In their loving, yet were bound,
By the character renowned
Of the tongues that did resound
With the story going round,
To reiterate the shout—
"Meeker and his wife are 'out!'"

Ripe with wonder were they all
That such evil should befall
People they'd been prone to call
Proofs of love's enduring thrall;
But as day did day succeed
Rumor was of truth the seed
And did full conviction breed,
For the moments time doth deal
Did, in proof of reigning zeal,
Meeker and his wife surely reveal
Daily "out" in their automobile.

Fame

By Virgil Smith

Now, what is fame? Ah, who shall say?
This thing that lasts but for a day;
This fancy which destroys repose
And makes crowds murmur, "There he goes!"

Sometimes by toil severe 'tis won;
Sometimes 'tis gained in social fun.
Or near the muffler's fierce report,
Or in the rural "justice" court.

The pugilist, the preacher grave,
The scorcher who won't behave,
We hail them all with accents gay.
Now, what is fame? Ah, who shall say?

Some of the Drawbacks

By Emmeline Burton



AS one who has not progressed so far along life's highway as to have forgotten the toll-gate where Dan Cupid demanded his wage from all those who journeyed onward, I want to appeal to my sisters not to entirely forget their old friend and true, the horse, simply because their fickle fancies are momentarily taken up with the glare and glitter and the speed and the splutter of an automobile.

The days when the horse, attached to the modest but confidentially constructed "buggy," was supreme are of the mellow past; so, too, is the modest but fearless young man and his modest but courageous best girl, and his rein arm, and his hither arm, and the good old dashboard which made any kind of arm superfluous for driving.

Gone are the simplicity and the gravity and much of the sweetness of moonlit nights and country roads. And gone are the "sprigged lawn" and a good deal of the trustfulness that went with the heart worn underneath it. "The sun do move," and we are now "Johnnie-on-the-spot," and all kinds of things that sound less fascinating than was the youth and beauty of the past.

Yes, gone are the days! Now we go "motoring," and we do it in the awfulest looking and feeling things ever invented.

A country road, shut out by palisades from the rude world! a cavalier in horrid goggles, set in silk or leather as if in a highwayman's mask, marring his manly beauty; a dogskin, yes, a great coat lined with dogskin—and only dogskin is permissible—no matter what the weather; his admirable legs encased in lightsome pigskin, worn fore and aft as a carpenter's are worn; and then his hose, so thoughtlessly thought out, just common hose such as a common man might wear; and shoes like any shoes; no noisy crackerjacks, but a wheelman's modest shoe.

See his shirt—see it and call it, if ye will, and ye cannot go it better. It's honey-combed and rigid at the wrist; a very devil

of a shirt in fine. No vulgar striped thing with pattern up or round, but woven in little squares and good as armor to arrest the eye or any other shaft of latter-day fine tilting.

Who would not run a horse emancipating vehicle and have an "air," and be preceded by a dismal hoot and followed by a never-ending sizz, boom, a—a—a—h; and a stench that reaches to heaven? The while beside him sits the same old girl who waits upon the hour when old folks yawn and roads get more deserted; the willing time and hour and man. The man? He's doubtless willing, but how can he?

Then there's the leathern glove with slits within the palm, and knuckle-holes without; the man's a sight; and when his mailed hand goes forth to find its mate it makes the maiden tired.

Dost like the picture, sisters mine?

A Foregone Conclusion

"GENTLEMEN of the jury," began the counsel for the Short Island Railroad Company, "my defense will be a brief one. I shall merely recall to your minds a few facts conclusively established in the course of the trial:

First—My clients had neglected to provide gates at the crossings, as required by law.

Second—For at least seventeen years the electric indicator had been hopelessly out of order.

Third—The signalman employed at the junction was known to be suffering from paresis. He had also been totally blind from his infancy.

Fourth—At the time of the collision the driver of the wrecked automobile was proceeding with the greatest possible caution, while—

Fifth—The train was running at double its ordinary rate of speed and the engineer was playing poker with the fireman.

* * * * *

That is all, gentlemen. The defence is now closed.

Of course there was nothing left for the rural jury but to return a verdict completely exonerating the railroad company.

Arrived Later

"Did your ancestors come on the Mayflower?"

"Certainly not. They came in a touring car."

Some Never Neglects

By Percy A. Venable

IT is often easier to tell a man what not to do than it is to inform him just what he should do. When it comes to touring in an automobile this advice-giving problem is not altered, and a negative form of imparting information retains all of its well-won honors. A few don'ts which the automobilist, on touring bent, will do well to read and remember, if he values his own or others' safety, or cares for his comfort or theirs, are these:

Don't start out without a full complement of tools, enough of them, in fact, to enable you to take the vehicle completely apart, if necessary.

Don't start without a full tank of gasoline and one of water.

Don't carry more luggage than is necessary. If the trip is a short one, a toothbrush is about all that is necessary, excepting, of course, a mackintosh and an overcoat. Cheap clothing can be obtained *en route*, when necessary, and the space taken up by baggage might better be used to carry an extra supply of gasoline and oil. Should you still prefer to have your luggage along, then keep it ahead by rail or express, picking it up each night and shipping it off each morning. This is not always a success, but it will give you something extra to worry about in any event.

Don't start expecting to purchase the best lubricating oil at every cross-roads store. Take a sufficient supply with you.

Don't neglect lubrication. Oiling up every twenty or thirty miles will be none too often. To do this takes but a moment or two, but it may save a breakdown.

Don't leave the car in the street under any circumstances without first having made it impossible for any smart Aleck to start it.

Don't start without first testing all of the nuts, the carbureter, spark and lubricators. Something may have worked loose, or some one may have fooled with the vehicle since you last used it.

Don't use any but high-test gasoline unless you are absolutely compelled to.

Don't leave upon a trip of any length without supplying yourself with duplicates of all the vital parts of the engine, such as spark plugs, etc.

Don't drive the vehicle to its full capacity unless it is absolutely necessary you do so.

Don't use the low gear until it is plain that the high one will not do the work.

Don't, if you get stuck on a grade, fail to try backing up it with the reversing gear, which being the lowest gear, is more powerful.

Don't push a boiler too long nor too hard, or you will risk burning it out.

Don't give up in despair if you do not find the cause of an unexpected stoppage on your first search for it. Unless something is broken, every trouble can be remedied. First try your carbureter; next, your sparking device. If the last named is not working regularly, take out the plug and test it to see if short circuiting is occurring. If the torch does not work as it should, use the foot pump to see if it is clear.

Don't lose your temper when you are roundly abused. The only thing such a loss can do is to get you into trouble in a strange place where all of the chances are in favor of the other fellow getting the best of it.

Don't get the idea that you are the only being on the road.

Don't disregard the injunctions of officers, but slow up—at least while you are in sight of the enjoiner.

Don't lose your nerve if you see a frightened horse ahead of you, and never come to a full stop if you can avoid doing so. Most horses are quite as much frightened at the machine when it is stationary as when it is in motion, so if you keep under way you are the more quickly out of the animal's neighborhood.

Don't fail to be superlatively cautious when you encounter a woman driving a horse. She is usually more frightened than the animal, and no one but Divine Providence can ever foretell what the two of them will do.

Don't fail to speak to a horse who shows symptoms of motor dementia and hysteria. Often the sound of your voice will reassure him.

Don't take your foot from the brake under any circumstances.

Don't try to head off a trolley car simply because you think you have speed enough to do so. Something might happen to check your speed and then the doctor, the repairer, the lawyer and maybe the undertaker, would be the ones most benefited.

Don't scorch—at least don't get caught at it.

Don't try to explain to a countryman how the steam gets into the wheels. He will either not understand or else he will conclude

you are trying to make game of him. In the first instance you waste your breath; in the second you risk getting into trouble.

Don't overwork the auto horn. The hoot often frightens the horse more than the scoot, and no wonder.

Don't, with a steam vehicle, charge a hill at top speed. Slow down before you begin the climb, and let steam accumulate so as to have the extra power you will need later on.

Don't, when using an electric, run too close to the figures shown by the volt and ampere register, or else you may find yourself between charging points looking for a friendly horse to help you home.

Art and the Auto

By Genevieve Guernsey

"HAVE your picture taken, now, in your auto." All day Sunday and every pleasant afternoon the man with the raspy voice and the violet-tinted nose, cries this continuously up on the quiet stretches of Seventh avenue.

"Get your picture taken while you wait! Remember this is the old reliable gallery." Thus the raspy-voiced one completes his invitation. Then he starts it all over again and continues it until some runabout, all begoggled and beleathered until you would think he was good for fifty miles within the hour, in place of his limit of fifteen, anxious to perpetuate his up-to-dateness, turns a willing ear to his raspership. Then what follows is history—history of man's vanity and the versatility of his fellow-man who profits by taking advantage of it.

The "old reliable gallery" is a one-story alлегement of boards and canvas which may have seen better days years ago. The runabout gets his \$500 beauty in the middle of the bit of cross road which will be a street some day when a swamp has been filled up. He assumes his most professional air, glares through his goggles, inflates his leather-clad chest, and tries as best he knows to look the part of one of those millionaire scorchers, regarding whom he has read so much in the penny papers and elsewhere seen so seldom.

The picture-taker—a past grand master in the art of fakery—adjusts his camera in the good old-fashioned way, with his head hidden beneath a dirty cloth, which was probably at one time black, but which age and exposure have now reduced to a color which can only be described as not being anything but itself. Looking up the

artist touches the under side of his hat brim, which the runabouter, probably with recollections of similar posings afoot at Coney Island, correctly interprets as meaning that he should raise his flat-topped head covering a little bit back from his face, and acts accordingly. All ready, the artist removes the cap from the lens, and, the picture-taker says to the man in the runabout, as he removes the plate from the camera:

"Two minutes."

Then, while the picture man temporarily vanishes from sight in the shack which does duty for "the old reliable gallery," the automobilist, anxious to get away from the crowd of interested on-lookers which have assembled during the taking and some members of which have not restrained themselves from passing remarks more truthful than complimentary, slowly circles on the broad avenue with the automobile. The two minutes or more having elapsed, he returns and halts in front of "the old reliable," on the threshold of which the proprietor awaits him; the work of art is complete; naught remains but the sordid payment therefor.

The artist hands over to the autoist a large-sized tintype in a pink paper holder or frame, with a pink flap to cover the face of the picture; the autoist reciprocates with twenty-five, or if he is unduly impressionable, fifty cents in the good coin of the realm. After the customary manner of people afflicted with acute tintypelitis, the runabouter raises the pink flap, gazes with a somewhat satisfied smile at the counterfeit presentment of himself which he sees, then carefully bestows the precious work of art in the breast pocket of his leather jacket.

All ready again, the runabouter swings the little vehicle around and speeds rapidly away from the scene of his picture taking, apparently not being any too anxious to again subject himself to such an ordeal; while the man with the violet nose and the voice of a rusty file once more takes up his burden with: "Have your picture taken, now, in your auto. Get your picture taken while you wait. Remember, this is the old reliable gallery."

Long Island Teachings

Time's money; that's the lesson

The tourist has to learn;

And he shouldn't scorch a minute,

Who hasn't money to burn.

Considered as a Farm Vehicle

By S. B. Beebe

TWO Long Island ruralites, who for the nonce were not aggressively anti-automobile—they were being paid by the Automobile Club of America to act as watchers and prevent their fellow farmers from wandering on the road in front of the racing cars which were being tried out for the purpose of selecting America's representatives in the Gordon Bennett race—were commenting on the machines which were putting easy money in their pockets. A long, low, wicked-looking racing car was sauntering past on its way to the starting point at about 40 miles an hour, when watcher number one said to his mate:



THE MODERN FLOW HORSE

"Darned if that thing wouldn't pull a plough better'n a team of horses." After thinking the idea over the one spoken to replied: "I'd rather nail harrow teeth to it, b' gosh!"

Just at this point of the conversation there was a rush and a roar, and the racing car passed doing its every mile in better than sixty-second time. The first speaker removed from his eyes and whiskers some of the gravel, grit and dust deposited there by the big machine and then resumed his remarks with:

"You'd have a devil of a time, wouldn't you, now, try'n to har'ar a field with that thing cavortin' about?"

But number two did not intend to abandon his harrow idea without a struggle and so replied:

"Wall, I guess I cud hol' 'er down to bizness if that skeered-lookin', pigeon-faced chap that's on 'er can."

"S'pose'n she got 'way frum yer an' started fur the barn, then whut'd ye do?"

"Wall, I jest fall off'n and let the dern thing go to — wall, p'r'aps it wouldn't do on th' farm after all."

Then the man with the dough bag bore in sight and the more important matter of getting paid for their wearisome labors occupied their attention.

Automatic Auto Humor

A TOURIST had strayed out of his course and taken a cross-road into a remote farming district. After awhile his touring car went whistling past a wheat field. Near the fence sat an old farmer contemplating an ancient and dilapidated mowing machine. He gazed in open-mouthed astonishment at the rapidly approaching vehicle, while the horses in an adjoining pasture broke for the tall timber.

The automobilist checked his speed and steered in the direction of the wonder-stricken farmer. Apparently this was the latter's first view of the modern distance annihilator.

"Well!" exclaimed the astonished farmer, "what on airth do ye call that there thing?"

"Why," said the tourist, struck with the humor of the situation, "this is an automobile."

"A what?" drawled the puzzled farmer.

"An au-to-mo-bile."

"Oh, that's one o' them new-fangled things I've bin readin' about, I 'spose."

Then the tourist became a little inquisitive on his account.

Indicating the old mower, he said:

"What do you call that machine over there?"

"Thet's an auto-mow-hay, but th' derned thing don't," quickly responded the rustic.

Whereupon the donkey who, during the conversation, had been lazily dining off of thistles in a neighboring field, raised his head and his voice to heaven. Even a jackass could appreciate the ability with which that apparently unsophisticated fence-sitter had for the four hundred and eleventh consecutive time led up the smart city chap to the one joke of his hayseedship.

Hunting with an Automobile

By George E. Walsh



CERTAINLY the motor vehicle was not originally intended for hunting purposes; yet under certain conditions it has proven itself a far better hunter than some trained steeds of flesh and bones. It must be admitted at the outset that there are woods and fields through or over which the automobile cannot travel as well as a horse does, and there are also fences which in a cross-country chase the machine could not jump. There is little question of its ability to go through the highest and strongest fence erected by farmers to divide their fields into convenient sizes; though it is well to admit that such a performance does not always prove satisfactory to the owner or driver.

Recognizing these handicaps one can then proceed to explore fields where a motor-car built for rough roads and countries has eminent advantages over a horse. The motor vehicle's possibilities in the hunting field increases with each improvement made for its performing heavier work and rougher traveling. Lightness must be combined with strength, and any vehicle possessing these two essential qualities can be employed for hunting.

It was on the shores of Lake Superior where I had my first experience in hunting with a motor car. Except for the roads—and notice particularly the exception—the country around the lake is ideal for automobiling. It is, romantically picturesque and attractive, abounding in exquisite views of land and water which seem to blend together in the distance. On every side game is abundant. There are quail, ducks, partridge, snipe, foxes, prairie hens and almost every conceivable bird of sport. In the late summer and early fall the air is as delightful as the country, and one never tires of riding over the rough country roads. If the inhabitants would only build modern roads in this district what a land of promise and realization it would be for the lover of the automobile!

But were these roads built then there would probably be no hunting with an automobile, since unfortunately when civilization brings luxuries to a country then the pristine beauty and naturalness disappears. So also go the many attractions of the woods and streams. If

the natives built roads through this great upland district for game they would drive the birds and animals to more hidden and inaccessible retreats.

The only way left, then, is for the hunter to adapt the motor car to the region. The one I started out in to hunt with was a rakish, piratical-looking craft, low-down, a bulldog in appearance, speedy but heavy, and was stripped of all superfluities. It was dirty and scratched from long service in the field. It had tires that were practically unpuncturable, and a body that could resist the swish and slap of twigs, bushes and branches. When the owner first broke his steed into hunting both he and it were objects of derision. The old hunters, mounted on their horses, laughed at the eastern greenhorn in a motor car who expected to keep up with them traveling across rough country roads and open pasture fields and meadows which rolled and swelled in billows as far as the eyes could see.

But they changed their mind later, when the motorist, taking the lead at the beginning, held it, across rough fields, fairly chasing the fleeing fox as no such animal had ever before been chased. The greenhorn wound up by keeping abreast of the pursuing hounds, while its owner enjoyed the rare sight of the final conflict between the fox and dogs. When the hunters came up on their horses, the motorist was quietly contemplating the brush which he had captured.

"Want to go hunting this morning?" my friend asked as he drew his disreputable looking car up before the hotel. "If so jump aboard, and we'll join the party later."

There had been planned an early fox hunt, followed by a breakfast, and later in the day prairie chicken shooting ten miles back in the country. I supposed that we would go to the early morning hunt, and look on at the sport from the motor car; but I little anticipated the race we were in for. It was only when the start was begun that I realized that we were going to be well up in the affair. There was a slight grumble from some of the horsemen about our joining in the chase, but their objections were promptly ruled out. The only satisfaction left the objectors was expressed by one of them as follows: "I hope the fox will take to the woods or the mountains."

That meant that the automobile could not follow, and we would be left behind. When the hounds finally started Reynard up it looked for a time very much as if the objector's wish was to be fulfilled. The creature after coursing over a familiar meadow, which we took with ease in our car, turned abruptly to the right and

headed for a dense wood. Then we shot forward with great speed, hoping to head him off. This was where we had the advantage over hounds and horses. We simply spurted along a fairly good road which quickly brought us up so close to the fox that he took fright, gave up his woods idea, and veered to the left again.

This adroit work of ours kept us in the hunt, but unfortunately the fox had another purpose in view in returning to the meadows. Ahead of him was a shallow, but pretty broad ditch filled with dirty water. A fox could easily leap this ditch, and so could a horse or hound; but we were not so sure about an automobile doing it.

Our driver, however, was made of sterner stuff, and knew both his car and its capabilities. He had experimented in cross country riding in this very field. For all that we knew to the contrary he had bucked at this ditch a dozen times. When the fox made straight for it, we thought we could hear shouts of gladness from behind. At last the automobile would have to give up the chase, or make such a wide detour as to fall far in the rear. Not a few of the hunters were a little surprised and alarmed to find our machine increasing its speed as it approached the ditch, and by the time the fox leaped the obstruction we seemed (to me) to be making fifty miles an hour, and fairly flying over the ground. Then our host exclaimed:

"Lay low now, and hang tight!"

"Good heavens, you are not going to dump us into that ditch, are you?" gasped one of our party.

There was no answer. The machine rushed forward. We saw it approach the ditch at a point where the embankment was considerably higher than on the opposite side. Then with a burst of speed which took our breath away the automobile shot up this embankment and flew straight into the air, not touching ground for nearly twenty feet away. When we did reach terra firma again, it was on the opposite side of the ditch. We knew that it was firm ground, and not water or soft mud which we struck by the impact communicated to our bodies by the stout machine. There was a jar and agonizing shake which made us groan in unison. We almost expected to find the machine in a dozen fragments, but the ground around us was spinning past us as fast as ever. We knew then for the first time that we were safe, and that the Rubicon had been crossed without accident.

Recovering our breath we turned now with renewed animation to the delights of the hunt. We could hear shouts of wonder and admiration from the horsemen behind. Not one of them had ex-

pected us to jump the ditch. Even the hounds seemed demoralized by a machine which could outrun them in the field and perform such uncanny feats. Some of them swerved off to the left, and the others broke from the pack to take a diagonal course to the trail, for the fox was in plain sight now, and they no longer needed the sense of smell to keep track of him.

At this point of the chase the fox reached the foothills of a small mountain range, which presented a ragged and jagged appearance. Within its confines there were holes, caves, and hiding places of which the pursued creature knew, and as if conscious of this chance of escape the hounds suddenly renewed their energies. Now we were surely out of the race. No automobile could hope to climb up the hills in hot pursuit of a fox. But again we were disappointed. Extra power was put on near the foothills, and we gained on the fox so that we could almost touch him with a riding whip. Then as we ascended the first hill we began to lose. It was not a very rough or rugged hill, so when we reached the summit we were not far behind the creature.

We were in a wild and unmapped region now, and the danger from much speed increased at every rod of progress. Fortunately the fox did not seek cover, but kept so well into the open on the hill sides that we could follow with little difficulty. It was only when we swerved once more and started for the woods that fringed the edge of the hill that we had to desist. We might cross meadows, jump ditches and climb mountains, but no automobile could knock down or go through trees a foot or two in diameter. When the fox passed from sight between a row of large trees, we stopped.

"Well, it's off; but it was a good chase," we exclaimed in chorus.

"I think not," replied the owner of the car. "Reynard won't stay in those woods long. If I know anything about him he will sneak out on the opposite side and take the low country road. Anyway we'll go and watch for him there."

Slowly we went around the edge of the woods, and finally came out on a flat plain a mile distant. An old country road wound down from the woods and disappeared in the distance, reaching, as we learned afterward, to the very waters of Lake Superior. We waited patiently and quietly for twenty minutes. We could hear the deep baying of the hounds in the woods, and the crashing of the horses through the underbrush, but there was no sign of the fox. Just when we were giving up in despair, there was a sudden flash of something in the bushes near, and then the fox sprang out in the road in full

view. He was so busy looking backward to catch a glimpse of his pursuers that he did not notice us. It was only when the machine puffed and started that the creature gave a frightened glance sideways, and then leaped forward down the old country road as fast as his legs would carry him.

But swift as he was our machine was equally rapid in getting under headway. At the outset the fox had the start of us, but in a few minutes we slowly gained on him. It was a pretty race—as pretty a one as any sportsman ever witnessed. The road was straight and long, with only slight undulations in it to give excellent views ahead and to shut out entirely the fox at certain angles. If the fox would only keep to the road!

This we hardly dared hope for, but to our joy he kept on vainly striving to outpace the machine. We had no intention of running the animal to his death. He had won his safety from the way he had eluded the hounds and huntsmen. We would merely give him a chase, and then his liberty.

But he was plucky to the last drop of blood in his tired little body. Not once did he slacken his speed or swerve from the straight road. He was determined to beat us, to show us that no ordinary invention of man could outpace one of nature's swiftest of four-footed beasts.

But few animals can accurately gauge the swiftness of a bicycle, railroad train or automobile. Many a time they have hung in the path of these modern fleet vehicles only to suffer the consequences which must inevitably follow from a collision. Our fox seemed equally stupid in not realizing that we were slowly but surely creeping upon him. We were not doing our best, either. The road was full of bumps and holes which made riding somewhat hard and unsatisfactory. At times we bounced unpleasantly upward and downward, and then swayed sideways to an alarming degree; but our driver was a man accustomed to rough country riding. He was one of the pioneers in the new sport of hunting with an automobile—a believer in cross country riding with machines built for the purpose. Some day when the sport is well established we who rode with him this day will combine together to help build a monument to his memory. He will deserve it.

When we were within a few yards of the fox we hung on his flank without attempting to approach any closer. We wanted time to study him. It was such an unusual sight that not one of us wished to terminate the chase. We could easily, with a little burst of

speed, have run him down or forced him into the ditch on either side. That would have brought no good to us. Or, again, we could have killed him with a stick or stone, or possibly lassoed him with a rope. It all seemed so easy. But not one of us spoke. We were as silent as the air around us. All that we heard was the patter of the fox's feet, the puffing of the machine, and the rushing and grinding of the machinery.

Finally the fox gave one terrified look over his shoulder. The sight of the monster almost upon him was more than even his nerves could stand. He gave one frightened leap to the right, and landed plump in the ditch. He sprawled out there, and for a moment lay silent and motionless as we shot past him. When we brought the machine to a halt the fox was half way across a neighboring field making for the woods with all the strength he had left. The hounds and horsemen were lost so far in the rear that there was little chance of their ever catching up in time to corner their victim. We returned slowly for the hunt breakfast, well satisfied with the novel experience, and glad indeed that our chief entertainer, the fox, was probably at the same time enjoying his hunted breakfast.

The Best of Them All

By Eunice Brayton

You can prate of your summer romances,
Of the glens, of the groves, and the sea;
Of the silly small talk, that enhances
The pleasure of five-o'clock tea!

You can boast of your horses and carriage,
If you've married an earl or a duke,
Although very likely your marriage
Will prove but a monetary fluke!

Forsake these society fetters,
Come with us o'er valley and hill;
Tear up all your silly love letters,
And take to motoring with a will!

Throw care to the winds, 'tis the fashion;
No pleasure in life is so real,
'Tis the proper up-to-date passion,
So purchase an automobile!

Something About Patents

By Hon. Jasper R. Higgins



FEW, if any, modern inventions have approached the automobile in its stimulating effect upon the inventive output. That the desire to improve the automobile has in no wise reached its limit is plainly shown by the letters which reach the offices of lawyers who make a specialty of patent law. In no inconsiderable number of these letters the question most often asked by the writers is "Can a patent on this be obtained?" So often has this question been asked me by those who think they have an idea which will hasten the coming of the perfect automobile, that I have thought maybe a brief outline of what is patentable may not be without interest to your readers.

A patent may be obtained by any person who has invented or discovered any new and useful art, machine, manufacture or composition of matter, or any new and useful improvement thereof not known or used by others in this country before his invention or discovery thereof and not patented or described in any printed publication in this or any foreign country before his invention or discovery thereof, or more than two years prior to his application and not in public use or on sale in the United States for more than two years prior to his application, unless the same is proved to have been abandoned, upon payment of the fees required by law and other due proceedings had.

A patent may also be obtained by any person who by his own industry, genius, efforts and expense has invented and produced any new and original design for a manufacture, bust, statue, alto-relievo or bas-relief; any new and original design for the printing of silk, woollen, cotton, or other fabrics; any new and original impression, ornament, pattern, print, or picture to be printed, painted, cast or otherwise placed on or worked into any article of manufacture; or any new, useful and original shape or configuration of any article of manufacture, the same not having been known or used by others.

before his invention or production thereof, nor patented nor described in any printed publication, upon the payment of the usual fees and upon the usual proceedings.

The receipt of letters patent from a foreign government will not prevent the inventor from obtaining a patent in the United States unless the application upon which the foreign patent was granted was filed more than seven months prior to the filing of the application in this country, in which case no patent will be granted in this country.

In case of the death of the inventor the application will be made by and the patent will issue to his executor or administrator, and where the inventor dies during the time intervening between the filing of his application and the granting of a patent, letters patent will likewise issue to the executor or the administrator. Where an inventor becomes insane the application may be made by and the patent issued to his legally appointed guardian. Joint inventors are entitled to a joint patent and neither of them can obtain a patent for an invention jointly invented by them. Independent inventors of distinct and independent improvements in the same machine cannot obtain a joint patent for their separate inventions.

These are the great fundamental rules upon which patents are issued and should be remembered for future reference by all those who believe they are destined to become improvers of the automobile.

Hard Lines for 'Lopers

"Too bad about Rigsky, wasn't it?"

"What?"

"Why, he made an arrangement with his best girl that they were to elope in that little bobtail steam runabout of his, and just as they had reached the dominie's door, with her old gent in the rear with a foaming horse, they were arrested for scorching."

History Rewritten.

Mahomet had just gotten off his little aphorism, "Knowledge is power."

"Very good," exclaimed the Grand Vizier with a green look. "Then do we understand that horse sense is horse power?"

This being too much for the great prophet, he went forth and re-enforced himself with a pony.

Routes to Saratoga

From Albany, Troy and Schenectady to the Premier American Spa



O one making an automobile trip up the Hudson from New York or any intermediate point, either the city of Albany or its next-door neighbor, Troy, will usually be the first objective point. The tourist will invariably be more pleased than disappointed when the State capital comes into view, for the last twenty-five or thirty miles are comparatively flat and uninteresting. This final stretch, too, is very likely to seem longer than it really is, while the execrable entrance from Rensselaer over the south bridge into Broadway takes away for the time being all the enthusiasm that grew into something worth while among the highlands

of the lower Hudson and on the fine stretches above Poughkeepsie.

But once in Albany, no matter which way you turn, there is to be a radical change. The Hudson will be alongside little if any longer, depending upon the route taken out of the city. A few miles riding in any direction will bring the automobilist into the open country; and some new possibilities appear. Two or three grand routes lead eastward into New England; and directly west, through Schenectady, the Valley of the Mohawk opens up. Northward are the eastern Adirondacks, Lake George and Lake Champlain; beyond them, Canada. One is apt to ponder these possibilities and wish that he had a month or six weeks instead of the two or three days he has probably allowed himself to find them out.

Saratoga is central to all this northern district by road as well as by rail. It is more than a speck on the map; more than merely a popular resort. It is an American summer institution, with an automobile aspect and interest of its own, from the first of June until the last of September. The annual flower fête is only one of the many pleasant functions in which the owners of motor vehicles take an active part. With good roads leading to it from all directions, a better objective point for an automobile tour in vacation time would be hard to find. The very name calls up happy recol-

lections to countless numbers of pleasure seeking Americans, who have been there, and arouses the eager anticipations of the rest who hope some day to go. And the best way of all is by the wide, open road, in one's own touring car. Many there be who have already taken the hint.

The Way Out of Albany

Of the various routes from Albany to Saratoga the best, all things considered, and the most used, leaves Broadway at its junction with State street, in front of the Post-Office, and turns directly toward the Capitol. Keep to the right around the Capitol and alongside on Washington avenue; and a short distance ahead notice on the right the fine armory of the Tenth Battalion, N. G. N. Y. So far, from down town, the way has been stone-paved and uphill. A block or so beyond this armory, the Northern Boulevard is entered by a square turn to the right. It will be necessary to watch for this, as the boulevard proper begins at Clinton avenue, a few blocks farther on, and has a very modest connection into Washington avenue. You come at once to a brick-paved viaduct, and Clinton avenue is crossed at the foot of the down-grade that follows on the other side.

This fine thoroughfare—Albany's Riverside drive—speedily shows itself. It shortly makes a long sweeping curve, following a bend in the river at this point, and crosses a high iron-frame bridge over the four tracks of the New York Central R. R. A train passing below is looked down upon as from the top of a skyscraper in New York or Chicago. The beautiful home of ex-Governor and ex-Senator David B. Hill occupies a commanding position a little farther on, and is worth a minute's halt to see. Not long afterward the boulevard comes to an end at a cemetery; but the equally good Menands road leads to the left into the Albany-Troy road. The railway crossing and the little Menands station mark the point where this turn is made.

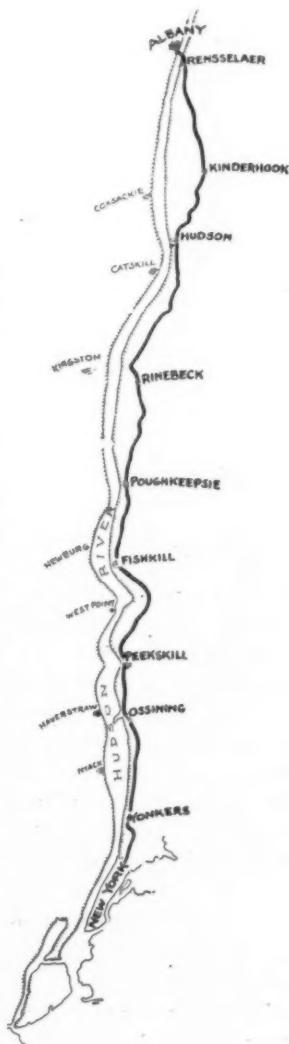
Follow the electric cars until they turn to cross the Congress street bridge into Troy proper. But instead of going into Troy, turn the opposite way—into 19th street—cross the canal bridge and swing up along the other side of the canal. There are a few ups and downs at first, but the way gradually becomes better, and there is an uneventful ride into Cohoes along with the trolley. Keep on through Cohoes, down past the falls and the mills to the highway bridge over the Mohawk, which is parallel with and not far from

the railroad bridge. After crossing this structure it is direct to Waterford and West Waterford. Go on to Third street, West Waterford, which take to Mechanicville, more or less of the way with the trolley cars and for part of the distance along the bluffs on the west side of the upper Hudson.

Coming into Mechanicville, keep straight on Main street with the Schuylerville-Glens Falls trolleys (not on Park avenue with the local street cars) until pretty well through the city, where turn left is made on North street or Saratoga avenue. This is a direct road to Saratoga; but if it is desired for any reason to go via Ballston Spa, it is only necessary to turn left around the little hotel at Dunning street, a hamlet about 8 miles out. By the direct road from Mechanicville, Saratoga is only 33 miles from Albany, most of the way over good dirt roads, with no grades over 3 or 5 per cent. It is possible to make the run in about two hours, but it is seldom done in that time on account of the number of places to pass through en route. The only bad spots are the passage through West Troy, and part of the way along the canal between Troy and Cohoes.

To Saratoga via Schenectady

A great many automobile tourists prefer to make the run from Albany to Saratoga by way of Schenectady, or at least to know how they may go one way and return the other. The distance is not much farther—some 39 miles instead of 33 miles—while the first 17 miles to Schenectady coincide with the beginning of the Albany-Mohawk Valley route. Another reason



why this option should be considered is that one coming from any Mohawk Valley or western point would naturally turn north at Schenectady instead of making the longer run by Albany and Cohoes.

The Schenectady route to Saratoga, though a bit involved at one or two points, is on the whole a very simple one. Leaving Albany exactly as before (Broadway to State street and up past the Capitol to Washington avenue), *do not* turn off at the Northern Boulevard, but keep straight ahead into Central avenue. The trolley cars run with the main road all the way into State street, Schenectady; with good going except in wet weather. Keep on State street to Jay street, which is only a few blocks east of the New York Central station, the center of the city. Turn right on Jay street and keep same past the City Hall and out to the great plant of the American Locomotive Works. There is some rough riding until the D. & H. R. R. tracks are crossed, then asphalt begins and continues for a considerable way. Where Jay street is cut off by the locomotive works, bend right with the asphalt for a moment, then take the first left—Romeyn street—out past the Standard Oil Company's station. A short distance beyond this point the road crosses the canal and carries one into the open country, through High Mills, Burnt Hills and Ballston Center, direct to Ballston Spa. There are a few jogs in the road, but the way is tolerably clear to the end.

Ballston is a miniature Saratoga, and a delightful little city, less known only because cast into the shade by its stronger rival just above. If anything its situation is more picturesque, for Saratoga itself is largely a product of her springs and the enterprise of her citizens, with the immediate environment not so attractive as some other places nearby. But the region as a whole is one of bright, sparkling waters and hard, white, level roads. When ready to start for Saratoga you will doubtless be told to follow the straight road, which means, however, that you will make one turn into Ballston avenue, almost at once, and a final turn into Broadway, Saratoga. But there are no grades to overcome, and an abundant opportunity is given to see the country, which is surrounded on all sides with a horizon of blue mountains.

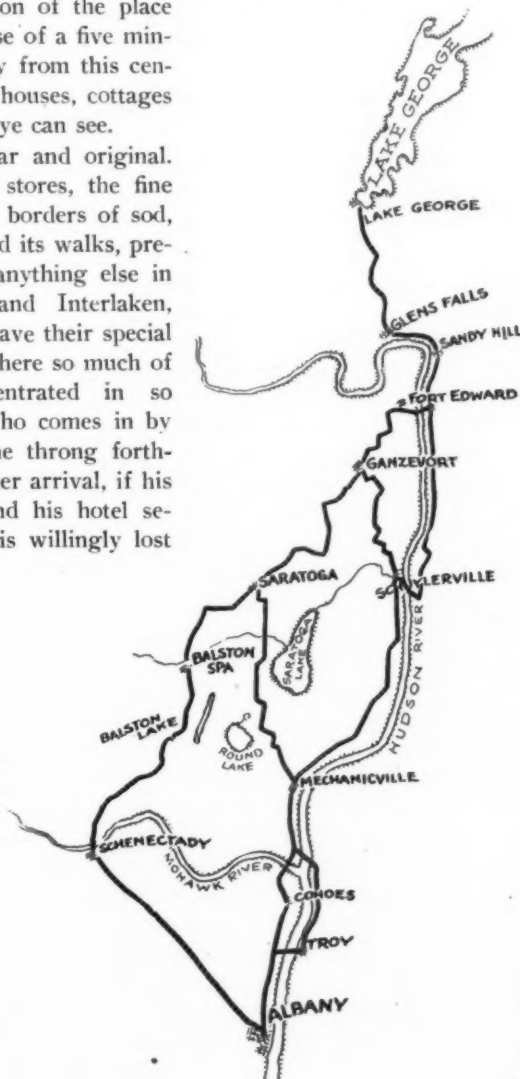
Combination of Town and Country

In approaching Saratoga, the change from open farms to closely-built houses is abrupt, and the automobilist is in the town almost before he is aware. The first intimation is the little group of cottages scattered about the Geyser Springs, perhaps three miles out.

Hotels and boarding houses are everywhere from now on, and the streets seem to be devoted to elegant leisure. The principal thoroughfare is Broadway, extending a little east of north through the entire town, making a grade drive and promenade, where all the life, business, pleasure and fashion of the place may be seen in the course of a five minutes' slow riding. Away from this center there is nothing but houses, cottages and villas as far as the eye can see.

Broadway is peculiar and original. The hotels, the elegant stores, the fine rows of trees, the broad borders of sod, and the people that crowd its walks, present a spectacle unlike anything else in the world. Newport and Interlaken, Ems and Long Branch have their special charms, but nowhere is there so much of general splendor concentrated in so limited a space. One who comes in by automobile is part of the throng forthwith, and a half-hour after arrival, if his machine is cared for and his hotel selected, his individuality is willingly lost in the crowd. He may stay a month and go for a ride each day during that time, and find something new and interesting each time—especially from twenty to forty miles out.

Among the numberless out-and-home trips from Saratoga may be mentioned the following: To the Geyser Springs and return, on Ballston avenue, 3 miles; Woodlawn Park, via North



Broadway or Third street, 5 miles; Circular tour out Ballston avenue and back by South Broadway, 7 miles; Saratoga Lake and return, via Union avenue, 8 miles; Ballston Spa and return, via Ballston avenue, 15 miles; White Sulphur Springs and return, via Union avenue and along the east side of Saratoga Lake, 16 miles; Round Lake and return via South Broadway, 25 miles; Glens Falls and return, via Fort Edward, 40 miles; Lake George (Caldwell) and return, via Fort Edward and Glens Falls, 60 miles; Albany and return via Mechanicville and Cohoes, 66 miles; Albany and return via Schenectady, 78 miles; Castleton, Vt., and return, 100 miles.

Connections with Other Routes

The automobile route from New York to Albany, which was published in detail with three maps, in *THE AUTOMOBILE MAGAZINE* of May, 1902, is shown in condensed form in the accompanying diagram. The distance from New York to Albany by road is 160 miles (as against 143 by rail); to Saratoga via Cohoes and Mechanicville, 33 miles more, or a total of 193 miles from Manhattan to Saratoga. By way of Schenectady it is six miles more or 199 miles in all. This makes three fair days' touring, with overnight controls at Poughkeepsie and Albany, allowing easily for arrival at Saratoga at noon of the third day out.

One touring to Saratoga from the west would come into State street, Schenectady past the New York Central station and keep on to Jay street, where left turn would be made, and the Schenectady-Saratoga line already given followed from that point. On the other hand, one starting from Troy might go direct through Lansingburgh (North Troy) to Waterford and West Waterford, and there join the route given to Mechanicville. En route to Lake George two ways are available, one via Saratoga and Gansevoort to Fort Edward, and the other from Mechanicville to Fort Edward direct, via Stilwater, Bemis and Schuylerville. The latter is about the only north-and-south line in this district that does not pass through Saratoga.

With her springs of healing waters, her delightful summer climate, her social prestige and her infinite resources for refined recreations, Saratoga is unquestionably to-day, as she has been for a century, one of the most distinguished of the great American pleasure resorts. Her manifold attractions are enhanced by the close proximity of the picturesque and historic regions of Lake George, Lake Champlain, the lower Adirondacks, and not so very far off the Catskills, the White and Green Mountains. Despite the prophecies of

decadence by flippant critics, Saratoga has not only retained her prestige, but has in many ways added to her charms and increased her facilities for the delight of the visiting multitudes. The hand of nature, aided by the deft touch of art, enhances the summer glory of her tree-bordered avenues, her splendid race-course and her placid lake. All these things and many more are most accessible of all to the automobilist.

Handicapped Thrills

By R. E. M.

CROUCHED in a low, tense posture, the Long Island constable with his trusty Waterbury watch tightly grasped in his bony hand, waited the oncoming of the unsuspecting New York automobilist. On, on he came.

The eyeballs of the Waterbury holder protruded gradually but unmistakably, and the perspiration started from every pore. Had he been in any position where he could have counted his pores he would have found that not a single one was arid; each one of them secreted perspiration. There were no exceptions.

On, on came the big touring car at full speed.

What was to be done? In a few fleeting moments it would be here! Its rumblings grew louder and louder and the chew-chew, chug-chug of its motor beat reasonably on the otherwise still night air.

Its speed was enormous; that was easily to be seen.

The headlight began to expand, and the brilliance of it dazzled his eyes, projected as they were beyond their normal location, as per above description, which is not copyrighted.

Rush—bang—crash—whish!! On came the big touring car,

The man with the jutting eyeballs and the Waterbury was now ready, and—

But, hang it! By this time the big car has passed and he has not had time to do what he intended, whatever it was.

That's the worst of this descriptive writing; it takes up such a deuce of a lot of time, and 40 H. P. automobiles don't wait for literary thrills when they run as per the desires of their scorching owners.

It makes me just as mad as anything!

The unhappy mental motorist is beginning to inquire how he is to pay for the high-priced gasoline with which to propel the automobile he is unable to buy.

Laid Low at Last

He was a cycle copper,
Upon an iron steed,
And was laying for the scorcher,
Who rode at lawless speed;
When whizzing 'round the corner,
At a breakneck, lightning pace,
Appeared a reckless driver,
Whereupon the cop gave chase.

"I say, there!" cried the bluecoat,
As he humped himself about,
"You're arrested for fast driving."
When the scorcher heard the shout
He looked o'er his shoulder,
And he didn't do a thing
But speed all the faster
And make the welkin ring.

"I like that," said the "finest,"
As through the thoroughfare
He started for his victim;
And the crowd that gathered there
Cheered the scorcher, jeered the officer
And wagered ten to one
On the scorcher as he sped along
On that exciting run.

In and out among the horses
And carriages on the street
They dodged about most artfully,
Doing many a dangerous feat;
But the bluecoat was outdistanced,
He hit up too slow a pace,
And his anger gave expression
In the wrath upon his face.

At last grown weak and weary,
The copper swore he'd shoot,
And reached back for his pistol,
But the crowd cried, "Don't, you brute!"
But he aimed it at the scorcher,
If he didn't, I'm a liar;
"Bang!" and the scorcher weakened,
For the cop had pierced his tire.

Touring and Road Interests

By Robert Bruce

NATURE, situation and the enterprise of their people have combined to make the northern Atlantic States the incomparable touring ground for American automobilists. The Florida East Coast, the prairies of the Middle West, Colorado, California and all the rest, have their own separate attractions, but the infinite variety of this North Atlantic country is scarcely equaled and never excelled. On the coast, from the Penobscot to the James, westward from Lake Champlain to Lake Michigan, southward from the Straits of Mackinac, the Rivers Ottawa and St. Lawrence, to the Potomac and the Ohio, is the most historical as well as the most popular section of the continent, with the largest proportion of good roads.

With Albany, N. Y.—the starting point for our tour this month—as a center, and a radius of three hundred miles, describe a circle, and it is doubtful if there can be found another area in this or any other country at all comparable with this in the infinite variety of scenery and in all-around attractiveness for the automobilist. Albany itself is at the head of most Hudson River routes—the American Rhine, flowing southward a hundred and forty-odd miles through a panorama of hill, vale, forest and stream, making a living companion all the way up from Manhattan. This two-day route is becoming better known and more popular all the time.

Eastward and northeastward is New England, the Scotia of America, with its wealth of historical and literary associations, where the original Yankee still survives. Within the radius of two or three days' automobiling are the Green and White Mountains, the Berk-



TOURING CARRIAGE BY A. L. DYKE, ST. LOUIS

shire Hills, the lake region of New Hampshire, and a cordon of sparkling isles extending all the way from northern Maine to Long Island Sound. Improving roads are gradually opening up this whole section to the tourist.

Northward is the Adirondack Mountain region—many of whose peaks are reflected by the placid waters of Lake Champlain and Lake George—where the trout still hide and nature is yet unsubdued. Short trips only are possible in this district now, but better things are already on the way. Still farther north is the most interesting of the British possessions in America, the Province of Quebec, where the tourist who is willing to put up with the trouble and expense of taking his machine into Canada and back again may forget that he is on the Western Hemisphere and as easily imagine himself in a foreign land.

Westward within the same circle will be found Central and Western New York, the former with the Mohawk, Susquehanna and Shenango Valleys, so closely entwined with the fading history of the Six Nations; the latter sprinkled with lakes that all summer long are alive with pleasure craft. This territory contains many thrifty cities and hundreds of miles of good roads, running through some of the finest agricultural lands of the East. Lake Ontario, Niagara Falls and portions of Lake Erie and the Province of Ontario we must also include with other attractions too numerous to mention.

Southward, lower New York, northern New Jersey and north-western Pennsylvania, portions of Delaware and eastern Maryland would be taken in, and our 300-miles circle would extend far out into the ocean, and take in a line of the coast south of New York nearly if not quite to the mouth of the Delaware River, the Ramapo Hills of New Jersey, the Pocono Mountains of Pennsylvania, Delaware Water Gap, the West Hudson country, Richfield Springs, Lebanon Springs, Watkins Glen and a host of other resorts will fall within the same compass.

This entire region is within comparatively easy access from New York, Boston, Philadelphia, Baltimore, Washington, Pittsburgh, Buffalo, Cleveland, Detroit, Toronto and Montreal. Sometime in the future we shall think no more of an automobile trip from any one of these cities to popular resorts like Saratoga, Atlantic City, the Maine coast or Long Island than we now think of the same journey by rail. Then the touring spirit will have come to its own, and automobilism will be established here as it is in France. We need more automobiles, a better popular knowledge of the country

in general and the roads in particular, and a code of liberal, uniform laws, to make this possible.

A Good Work Nearly Done

One of the most interesting enterprises of road improvement in recent years in New England is the rebuilding of that important stretch from New Haven to Meriden, Conn. There is now fine macadam all the way to North Haven, seven miles, and it is rapidly coming up through Wallingford and Yalesville to Meriden. For about six miles up from North Haven the whole country is a barren sand patch, to all appearances the same as the seashore or lakeside. There is nothing like it in that part of the State. A dozen years ago it was practically impossible for a bicycle, and the wheelmen, despairing or any reasonably prompt change for the better, built a fine sidepath between the two points, which they shared with the pedestrian, for walking was as bad as wheeling. Your foot would sink as in a bog, and one State administration after another evaded the task of its regeneration.

As good roads were gradually completed into New Haven from New York, and improvements effected from Springfield and Hartford down to the Connecticut State line, this sand patch below Meriden looked all the worse in its neglect. But for two years now, the State Road Commission has been working at it, and the transformation is well nigh complete. At the time of the Reliability Run to Boston and return, in October of last year, there was scarcely a mile of the old sand track left; and that was the most passable of all as known in former days.

Before long the automobile tourist will be able to speed through from one end of this section to another on the smoothest of macadam, with nothing more than an occasional bit of sand blown in his face from one of the dunes alongside the road to remind him of what the place was. It is characteristic of the best modern highway construction that it transforms the worst into the best at one operation; and every year now witnesses improvements that the road-users of even ten years ago looked forward to with unrealized hopes. One of the advantages of the automobile is that it benefits by all the good roads work that has gone before.

Practical Benefits of Travel

The American people are nomads, and nomads they will remain. We no longer "spread our tents and let out cattle roam," but leave

our goods and chattels at home and do the roaming around ourselves. We construct locomotive engines, steamboats, automobiles and bicycles to take us hither and yon; and then build great summer hostelries in what were once the most out-of-the-way places of the earth, in order to have a suitable place to stop when night comes. No season has ever so emphasized the wander-love of our people as this season is doing. There are excursions planned to every part of the country, and every form of transportation is being used to a greater extent than ever before. The premiums quoted on early deliveries of the best-known American touring cars is only some side of it, for the railways are making such low rates to pleasure resorts East and West that they almost persuade people that it is cheaper to travel than to remain at home.

All this means something more than mere pleasure-seeking. It is the greatest maker for homogeneity that has ever been seen. Were it not for the ease of traveling and the encouragement given to it, the United States would doubtless be the inharmonious country that foreigners sometimes imagine it to be. Because our people see a great deal of each other, they are literally one people. The well-to-do inhabitants of Maine are on vastly more familiar terms with Californians than are the peasants of Hampshire, in England, with those of Surrey. Probably not one person in ten thousand in England (outside of cyclists and latter-day automobilists) has ever made the entire journey from Land's End to John O'Groat's, whereas in the United States a third of the inhabitants have seen the coast of Maine and the Golden Gate.

There is a neighborliness about this sort of thing which must go far to prevent future sectional misunderstandings. Commercial and civil wars are alike impossible in a nation which is on good terms with itself. Had the railroads and other routes of travel been north and south instead of east and west, there might not have been the misunderstanding that culminated in the conflicts of the sixties. The great amount of "globe-trotting" done by our people is the key also to our commercial supremacy. We understand better the needs of the world because we have observed its workings "on the spot." The world is no larger to us now than a country was to our grandfathers. We are nomads to a purpose, combining business and pleasure in the characteristic American way.

Unfolding the Maine Coast

The coast of the "Pine Tree State" has been embroidered by the sea after a curious and wonderful fashion. Winter and summer alike,

the restless and unsatisfied deep has been chewing away on the long rock-and-sand line, lengthening it out considerably by making greater inroads upon the beaches. This process leaves hundreds of islands, capes, peninsulas and other points, originally in the mainland, but now entirely surrounded by the blue because of Neptune's hard teeth. Take a good map of Maine, and trace out its long line of fantastic embroidery. Cover the land down to the water's edge with fir, balsam, pine, spruce, birch and oak, leaving patches of granite ledge and bluff, stony rampart and stretches of beach, in all sorts of unexpected places. Imagine the whole moulded into relief by the ever-busy sea, played upon by sunshine and storm, and you have a summer paradise which is being discovered and enjoyed by annually increasing thousands.

Given a highway from Portsmouth and Portland to Bangor and Mount Desert Island equal to that which reaches out north and north-east from Boston, and there would be opened up, without doubt, the finest 200-mile stretch in the continental coast line. It will come some time, but meanwhile Maine is losing a vast amount of money, and the section is known to comparatively few road travelers. At the present time one has good automobiling from Boston to Newburyport, 50 miles, and fair to Portsmouth, N. H., 20 miles more. Then it is sand, more or less deep and difficult to get over, all the way to Portland, Bangor and beyond. True, some good stretches have been built, especially in the Portland riding district—but on the whole the situation is unpromising from the automobile touring standpoint. It is the harvest time for the railroads and the steamship lines, with only the bad roads to blame for about one-twentieth the number of motor vehicles there should be above the Massachusetts line.



Advertising an automobile is much like preaching—you have to keep at it to make any lasting impression.

A Mile in City and Country

Very likely nearly every person with the opportunity to contrast conditions as they exist in the cities with the mere openness of things in the rural districts has noticed how the city mile is commonly regarded as shorter than its country counterpart. Many reasons will suggest themselves in explanation of this matter, and yet they are not at all satisfactory, when weighed in the balance. It is the same whether we walk or ride the distance. Along the route of the city mile we find many things to arrest attention, pictures and various displays in shop windows, fine buildings, men and women bustling hither and thither, and a thousand-and-one other things which deaden our conception of distance. For this reason the city mile seems to have been shortened. On the other hand, to one who can see no beauty in fence corners and hedges, the country mile is by comparison a long and uninteresting stretch. So much is, of course, principally a threshing over of old straw.

But the particular point I have in mind is this: The city mile seems to be covered on an average in less time than the country mile. As a rule (unless traffic interfere), one will, in fact, drive a mile in the city in less time than he will the same distance in the country. Ordinarily it would seem to be the other way, since there is in the former case so much more to attract one's attention, to stop the driver and consume his time. In the country his way is usually clear, and there is nothing to hurry him to his destination.

Of course the going averages better in the city because of the paved and asphalted streets. But the main reason why the shorter time is required is probably found in the stimulus which the automobilist in the city receives from the excitement about him. Everyone and everything is on the hustle. There is noise and confusion and, in spite of being bumped and jostled about, by rigs going in the opposite direction and otherwise, and in spite of frequent delays at crossings, one is worked up to a quicker movement. Excitement once again deadens the conception of distance, and helps to cover a city mile in less time than a country mile. The difference between a paved street and a dirt road has little to do with it. In the country, unless you have special reason for hurrying, you don't do it; in the city you do—whether necessary or not—largely as a matter of habit.

There should be a large and juicy fortune for the man who will embark in the business of canning predigested crow for those who foolishly believe they can legislate the automobile out of existence.

The Pavement of the Future

By Frederic A. Kummer, C. E., Assoc. Member American Soc. C. E.

ALMOST everyone admits that there are many other necessary qualifications in a street pavement than the one primary quality of durability. If durability were the only thing to be desired in a pavement, granite block would be laid to the exclusion of anything else, but as civilization progresses there is a growing tendency towards securing in all lines of construction work additional qualities which are demanded by health, comfort and higher artistic appreciation.

The large iron front buildings of fifteen years ago are giving way to steel and stone structures, which are not only beautiful from a utilitarian standpoint, but are, so far as their construction will admit, artistically beautiful as well. In the same way while granite or cobblestone streets satisfied the demands of traffic thirty or forty years ago, especially in this country, a demand for streets smooth, more beautiful, comfortable, healthful and pleasant to drive over has resulted in several forms of smooth pavements which in most cases are less durable than the original stone pavements, a sacrifice being made in this important quality in order that other essentials might be secured.

The reason for the extensive use of wood pavements in London and Paris has not been because they are more durable than granite, but because they are noiseless and smooth as well as possessing a higher degree of durability than is found with any other form of smooth pavements, and in these cities as well as in many other foreign



CREO-RESINATE WOOD BLOCK PAVEMENT ON MAIN DRIVEWAYS OF THE BROWN AND SHARPE MFG. CO., PROVIDENCE, R. I.

cities, this concession is made in order to secure quiet and comfort in dwellings, offices, public buildings, hospitals, etc., located on these streets.

One of the things which most forcibly strikes the European traveler upon landing in New York is the terrific noise from the streets. Even in this country there is growing a feeling that just as our bridges and buildings are being made beautiful as well as useful, our streets should be made noiseless, smooth and sanitary as well as durable. This tendency is being materially assisted by the great and increasing use of the automobile. The greater the use of self-propelled vehicles largely having rubber tires and especially avoiding the destructive action upon pavements in general, the greater the possibility of securing pavements which possess not only one, but all of the qualities desirable in a roadway for our streets.

The requisites of a properly constructed city street are in the order of their desirability the following; durability, smoothness, sanitary qualities, noiselessness and ease of cleaning and repair. Cost, of course, is an element to be considered, but we are now speaking of practical pavements in use to-day and not of theoretical forms of construction which could only be laid at immense cost. The writer fully believes, after a study of the subject extending over some years, that the pavement which most nearly fulfills all of these requisites is a pavement of wood properly treated and laid upon a solid concrete base. Such a pavement is more durable than any other smooth pavement than granite. It is as smooth as the smoothest asphalt. It is highly sanitary, because all of its parts are thoroughly impregnated with an antiseptic and waterproof mixture to resist the germs of decay and therefore, of course, all disease germs as well. It is practically without noise, which cannot be said of any other form of pavement known with the exception of the dirt road which is not a pavement at all, and being laid in blocks instead of in a sheet form, it is very readily taken up and relaid whenever necessary without any other plant or machinery than a competent workman and a wheel barrow. At the same time its smoothness allows of its being readily cleaned at all times.

Most people confuse the wood pavements of to-day with the old Nicholson pavements or round cedar block pavements of the past. These were not pavements at all, but consisted of untreated wooden paving blocks laid on sand, dirt or plank. A pavement is not in itself a single thing, but is a construction of several parts and must be properly designed and properly executed to fulfill its func-



TREMONT ST., BOSTON, MASS.
Laid with Creo-Resinate Wood Pavement in 1900

tions. In the first place the bed or foundation upon which the pavement is to be laid must be thoroughly drained and rolled. Upon this is laid the concrete base of the pavement generally six inches thick, made of Portland cement and crushed stone, and capable of withstanding the heaviest loads that will pass over the completed street. Upon this agent on a properly elastic cushion is placed the wearing surface of the pavement, which may consist of sheet asphalt, brick, granite, wood, or any other substance which is sufficiently durable to withstand the action of traffic, and possesses the other requisites named above. It will be seen, therefore, that in the proper selection of this wearing surface of the pavement much care must be exercised.

Recent tests of properly laid wooden pavements under the heaviest conditions of travel have shown that its durability almost equals that of granite block, and for this reason it has been specified for use on many important streets and bridges throughout the United States; in fact there is a much more extensive use of wood pavements at this day than is generally supposed by most people. A contract has just been awarded for laying 10,000 yards of this class of pavement on several important thoroughfares in Brooklyn, N. Y. Many of the principal streets of Boston, including Beacon Street,

Tremont Street, Boylston Street and Newbury Street, are laid with this material. Probably the finest bridge structure in the world, the new suspension bridge between New York and Brooklyn over the East River, known as the Williamsburg Bridge, now being completed at a cost of several millions of dollars, will be paved with properly treated wood blocks, specifications for this work now being in print. This bridge will carry a very heavy travel and in determining to use wood upon it, the expert commission appointed to decide this question, consisting of several of the most prominent engineers in the United States, selected wood above all other materials as the best for use under these conditions.

So much difficulty has been experienced with other forms of pavement, that there is a growing tendency towards the use of some substance, which, even at a higher cost, will give the results which are desired. The principal element lacking in all other forms of paving surface, is elasticity, and this wood possesses to a very high degree. The hardest stone pavements if continually subjected to a hammering action, such as the repeated quick blows from horses' shoes, or the pounding of heavily loaded wagons, will pulverize and wear away in time. The surface cannot give and consequently it is slowly destroyed. With wood, on the contrary, the fibers com-



MAIN ST., SPRINGFIELD, MASS.
Laid with Creosolite Wood Pavement in 1901.



DIVISION ST., SARATOGA SPRINGS, N. Y.
Laid with Creosote-Resinate Wood Pavement in 1902

press under the heavy blows and again expand to their original position, so that none of the substance of the pavement is destroyed or carried away, the only result being that under the heaviest travel the surface of the blocks slowly becomes more and more dense and hard by the compression of the upper fibers of the blocks.

Nothing has been said as to the method of treating the wood or the kind of wood to be used for this work. It suffices to say that experiments have shown that the most available wood for this purpose is all heart, long leaf Georgia pine, which is thoroughly homogeneous throughout all its parts and will resist, when set on end, a greater crushing strain than oak. This wood must be treated so that all its parts become highly antiseptic and at the same time the pores of the wood become closed and filled with a waterproof mixture, which excludes all moisture. Decay is thereby absolutely prevented and the wood is rendered much harder and denser and weighs almost twice as much as the average untreated timber.

Such a pavement has peculiar advantages for those using automobiles. Its great durability prevents its rapid wear from the large proportion of vehicles which for many years to come will be drawn by horses, and at the same time presents a surface for the travel of automobiles, which while perfectly smooth and noise-

less, is still not slippery. Wood being a very poor conductor of heat, this pavement does not absorb the rays of the sun during the day and give them out during the night, rendering streets hot and uncomfortable, as is so often the case on those paved with asphalt. The pavement is not rotted by moisture or oil, as is the case with asphalt pavement, and being unaffected by heat, does not become wavy or soft in summer as do streets paved with asphalt. On the other hand, brick streets which might be desirable, were all traffic automobile traffic, would never be suitable for traffic, part of which is automobile traffic and the other part heavy loads drawn by horses, as it does not possess the requisite durability and the edges soon become rounded and chipped, making a cobblestone-like surface which is extremely disagreeable for the passage of any kind of vehicles.

In the writer's opinion a pavement to meet the demands of both the very large use of automobiles and the undoubted continued use for many years of horse vehicles, must have the peculiar properties of being almost as durable as granite and at the same time smooth and noiseless. It must have these two widely different qualities to meet the widely different character of traffic which it will of necessity have to stand, and in no other pavement known are these two qualities so largely united as in the case of wood. The most durable pavement, granite, while suitable for heavy horse traffic, would not be suitable for automobile traffic or pleasure driving. On the other hand, the ordinary smooth, pleasant asphalt streets, while to some extent suitable for automobile and light traffic, would not be suitable for heavy traffic. It is only by a union of these qualities that we arrive at the pavement of the future, and by this expression "the future," the writer means the pavement which must be used during the next twenty or thirty years. After that, conditions of travel in our great cities may be so different that it is not readily possible to determine what form of pavement would be the most desirable.

The users of automobiles are doing an enormous amount of work in the advancement of good roads, and for this they deserve the thanks of all public-minded citizens, but while they are improving the roads, especially the long country roads upon which they spend so large a part of their time, they should as well devote some attention to the improvement of the streets in the cities upon which they live, for while it is desirable and necessary to have a road upon which long stretches for fast automobile work or touring may be



STATE STREET, BROOKLYN, N. Y.
Laid with Creco-Resinate Wood Pavement in 1902

secured, it is at the same time equally desirable to live upon a street or to have our offices upon a street which has upon it a sanitary, smooth, noiseless and durable pavement instead of one which, while possessing one or more of these qualities, may be so noisy that our nerves are constantly harassed and our business and comfort impeded, or on the other hand may prove so short lived that constant and heavy repairs must be done at very large expense. In conclusion, it may be well to say with reference to this quality of noiselessness in a pavement, that it is the opinion of many prominent physicians and specialists in the treatment of nervous disorders that the constant rattle and bang of traffic from our stone paved streets has a very material effect in the production of a variety of nervous troubles and indeed in the shortening of our lives, and this is a question which is worthy of more thought than has been given to it heretofore.

Modern Modesty

"My dear fellow," said the president of a well-known automobile club, "I never allow myself to be interviewed."

The journalist looked sad, and visions of an angry editor floated before his brain.

"I always interview myself," went on the president, "and if you'll call back in about an hour I'll have it ready for you. It saves a lot of mistakes that way you know."

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Ready-Made Opinions

IN one of the magazines for this month there appears a somewhat forcible article on the man with ready-made opinions. By this is meant the countryman who comes to town, and in time grows particular about the cut of his clothing and the fit of his shoes, disdaining to wear ready-made coats, but who does not disdain ready-made opinions. In other words, the article condemns the man who takes his ideas from newspapers and periodicals, instead of thinking for himself.

There is undoubtedly a very general tendency in our time to voice as one's own the ideas of others, and thereby save the trouble of thinking, but it is likely that one of the reasons why only a few persons were saved in the ark was that some person of influence declared that Noah was a crank, and that most of the population concluded that he was.

It is also likely that a more or less contented acceptance of other people's opinions is at the bottom of most of the progress of the world. If every man stopped to think everything out for himself it would be slow business trying to reform anything. The wise reformer gets at the leaders—the persons who will and must think for themselves—and when he has convinced them, whether they are in positions of recognized leadership or not, the others follow them like sheep.

Of course, we all respect the man who does his own thinking, and it is good that as many people as possible should do this, but, after all, an opinion is not necessarily bad because it is ready-made. In regard to the possibilities of the automobile, for example, the average man's home-made opinions would be about as valuable as a suit of clothes made and designed by himself without instruction. Unfortunately just at present the ready-made opinions of the automobile are decidedly saffron in color and derogatory in tenor, with the result that the man in the street is far from being the pro-automobilist he will later on become when makers of his opinions become better acquainted with, hence more favorable to the new method of conveyance.

Advantages of Fads

IF you haven't a fad acquire one. Fads are the charm of life. A fad may be anything; some people make a fad of their work, and better work would be done if more of us tried it; but if you get enough of your work in working hours take up something else.

The trouble with a great many young men who go the way they shouldn't go is that they have nothing to occupy their minds, nothing in which they are interested. When spare time comes it hangs heavily on their hands. The natural inclination is to be sociable, and that leads to taking a drink. That in turn leads to more drinks, and by and by the crash comes.

If you are interested in something, if you are fascinated with it, time will fly swiftly and you will be happy.

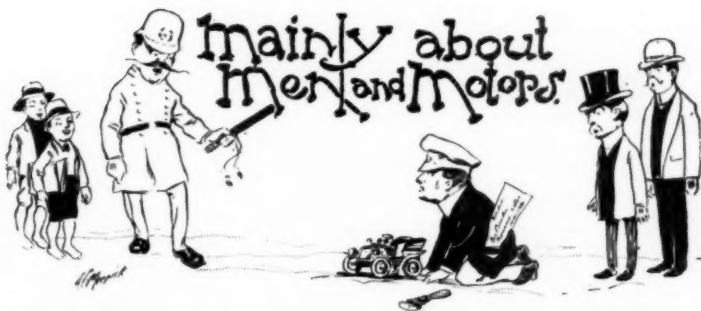
Take up something—golf, amateur photography, automobiling—anything that will arouse your enthusiasm and hold it. You won't know yourself in six months. It will get your mind out of a rut, get it off yourself, and you will be broader, stronger and better for having been the possessor of a fad.

Now the four-legged jackass is to join his two-legged brother in braying against the intrusion of the automobile. There has just been completed in Kansas City and shipped to a mine at Batopilas, Mexico, 180 miles from the Mexican Central Railway, across the Chihuahua Mountains, a gasolene automobile for hauling ore cars. None of its parts weighs more than 250 pounds, as the whole engine has to be carried from the railway to its destination on the backs of burros. It will run in a tunnel five feet wide and six feet high, and will take the place of sixty burros, which now pull the cars of ore from the mine. As the tunnel is small and its length great, the locomotive had to be constructed so that no fumes escaped. To accomplish this the carbonic-oxide gas is passed through a water-wash in the same way gas is passed through "scrubbers" at a gas works. It is claimed that the process will effectively prevent fumes from escaping into the tunnel, and that the combustion will be perfect.

Scott begins the "Heart of Midlothian" with some comments put into the mouths of two travelers on the dangers attending locomotion by the stage coach of that time. The frequent accidents, the reckless speed and the discomforts of the newly introduced stage coach are complained of: and invidious comparisons are made with the old-fashioned method by horseback. Probably with modern improvements in the means of transit there are a greater number of accidents because there are more people who travel. It is very doubtful if the proportional number of accidents is greater.

Courtesy is such a cheap commodity, and withal such a profitable one, that it is extremely difficult to understand how and why some people see fit to dispense with it in automobiling. The greater the discourtesy shown the smaller the man who exhibits it is the invariable rule, but this only aggravates, not palliates, the offence against good breeding and good business. When the eventual weeding-out of trade incompetents comes the passing of the upstart will be as rapid as it will be welcome.

A Berlin patent agency announces that a Polish engineer has found a way of chemically treating straw in such a way that it can be pressed into a substance as hard as stone and cheaper than wood paving, for which it is expected to prove a substitute. With roads built of this new Polish material, surely the automobilist will in the future have no difficulty of telling "which way the wind blows."



"I WAS in prison and ye visited me," quoth George A. Banker, as he raised himself from the hard bench on which he had been trying to sleep in a Philadelphia jail. George has always been a good boy, and I who say this have known him since he made his first debut as ing amateur on the field some fifteen sported the cherry a bicycle for the under the banner Athletic Club. of time to study confinement of sev- he might be study- not that good Schlichter, of the put in an appear- man, and suggested was time to wake

"All the trouble way," said George at the correctly- palace on North is owned by the and managed by just sold a machine purchaser out to dinner in it. We had two friends in the tonneau. I was coasting down Broad street toward the City Hall when some part of the machinery, a minor matter, became disarranged, and I dismounted to look it over. While I was looking my look, up comes



a very good look- Manhattan Athletic years ago. Then he diamond and rode honor of competing of the Manhattan Banker had plenty scripture during his eral hours. In fact, ing there yet had sportsman, Walter Philadelphia Item, ance with a bonds- to George that it up and get out. came about this to me when I called named automobile Broad street, which Banker Bros. Co., George A. "I had and was taking the

the cop and said, 'Look here, Banker, you go slow after this; you were going twenty miles an hour.' I contradicted him, and possibly I was a little hot, because I had my guest's check in my pocket, and with it there to have that blamed machine go wrong for the very first time was a plenty without any copper talk. On my intimating to the aforesaid guardian of the public's safety that his optical gears didn't mesh, and that I knew as much about speed as he did, he rang for a patrol wagon, and in it promptly bundled me off to jail.

"I sat in my cell, thinking of many things, including my moneyed partner, and hoped that he would come that way and take me out. After tiring of hearing the alleged jokes of two bibulous, but gentlemanly, guests, I folded up my automobile coat, made a pillow of it and laid down in order to forget my misery. Well, sir, I had beautiful dreams. One of them was that I was driving down North Broad street, and when I got within hailing distance of the City Hall, William Penn reached down from his lofty perch on the building, and said: 'Shake, George, I can't see anything in Philadelphia but Peerlesses and Autocars.' Just then Schlichter woke me up."

W. D. Gash, of the Searchmont Motor Company, and Captain Warburton, Treasurer of the company, who is also manager of the Philadelphia Evening *Telegraph*, soon discovered that the arrest of Banker was illegal, since the recently passed state law provides for the taking of the machine in lieu of bail. This was not done, so Banker has good grounds for a suit for damages against the city of Philadelphia. Thus the ignorance of one policeman may result in the fattening of George Banker's dough bag. About \$50,000, with a discount for cash, will square matters.

The more I study over it the more I become convinced that there is a distinct demand for a tire which will lessen side-slipping and which will grip the ground when called upon to do so at starting. A corrugated surface, it seems to me, would be a good thing, and the tire manufacturer who brings out a good, solid, corrugated tire will find it meeting with the approval of the automobile driver.

All this reminds me that the time is coming when the manufacturer of automobiles will have to give the purchaser his choice in such matters as tires and wheels, etc.; not for much longer will the buyer of an automobile be content to take a particular make of tire, simply because the automobile manufacturer has seen fit to adopt that particular kind. There is undoubtedly a vast difference

in the quality of tires, and the driving public is commencing to find this out, after having paid very dearly for holding opinions to the contrary. What I have noted concerning wheels and tires can with equal truth be said of lamps, bells, horns, etc. Experience soon teaches the purchaser of automobiles that there are good, bad and indifferent articles of the above kind, and once taught, the purchaser soon has a preference and insists upon having what he prefers placed upon any machine he owns.

THE AUTOMOBILE MAGAZINE has, from time to time, spoken of Col. Albert A. Pope, the world-renowned founder of the American bicycle business, and for years the President and Commander-in-Chief of the Pope Manufacturing Co., a concern whose products became favorably known the world over.



The writer has known Col. Pope personally for more than twenty years, and in all that time has not only known him as a man of great business capacity, but as a good roads promoter, who has led all others in his efforts to create and better the highways of America. I have told you about the fortune Col. Pope and his company spent in behalf of good roads, and to-day it is to him that we owe most of the interest in the subject of good roads which has grown up during the past ten years.

When Col. Pope surrendered his affairs into the hands of others and laid down his command of them, things quickly went from bad to worse. Seeing no hopes for any improvement he has again to take charge of affairs, and the Colonel is once more in the saddle ready to lead his bicycle and automobile army to the charge.

The other day he invited the newspaper men to the Park Row building, where his offices are. Among those who came were several who knew the Colonel of old, when they were always ready to follow where he cared to lead. "Boys," said the Colonel, "to-morrow I assume command, and I want you all to aid me in waging a war for the upbuilding of cycling and automobiling. Though I am nearing my sixtieth birthday, I feel as though it were only my fortieth one, but even as it is, I have ten years more good fight in me. Be-

fore I die I expect to do a lot more work on behalf of the bicycle and automobile, and before I quit I expect to see the majority of the streets and the roads of this country made good; in fact, I do not fear to make the prophecy that in twenty years from now a horse will be the exception, not the rule, upon the streets of the city of New York. I even expect in that time to see a road of national character, a main trunk line, so to speak, extending from New York to Chicago, and in addition a 100-foot boulevard all around New York, skirting the river front on both sides of the city.

"In a business way, I expect my company to become the largest advertiser in America, since I, better than most men, realize it can do nothing without it advertises. I expect to make automobiles in several factories, and you will see a gasolene Columbia or Pope automobile turned out in our Hartford factory, which will list as low as \$750, for the complete vehicle. We expect to double the capacity of our Toledo and Indianapolis factories, and from this on there will be no more marking time. The command will be and now is 'Forward march!'"

As the Colonel spoke he illustrated his remarks by telling how Gen. Phil. Sheridan turned the Battle of Winchester from a defeat to a victory. The Colonel said that all enterprises, whether of war or peace, needed a leader who, Sheridan-like, would lead his forces on to victory. The Colonel intimated that he would be "Johnny on the Spot" when it came to leading his.

I have every confidence in Colonel Pope being able to do all that he promises. He is a born leader of men, and that means a lot when it comes to winning. Colonel Pope has the love and the loyalty of a host of people, who will follow him unquestionably wherever he leads, and therein is the secret of his success.

Nothing that has occurred in the automobile trade since its inception has created so much talk and worry as the Selden patent announcement has. That the owners of this patent expected their claims would be disputed is shown by the fact that the veteran, George H. Day, resigned his position as president of the Electric Vehicle Company, in order to command the Selden forces in person. Many of the smaller manufacturers and, indeed, some of the larger ones, are now hesitating about turning out goods because they are not sure whether they will be licensed or not. In fact, it is said on good authority that it would be a hardship for some of them to produce the price of a license. The agents, too, who sell unlicensed cars,

are worrying. This licensing move by the Selden people was a shrewd one, because it attacked the ability of the unlicensed manufacturers to act as a distributing power, and the average person is not liable to invite trouble in that way.

One manufacturer I know of is endeavoring to evade an attack through the agency plan, and is advertising in the daily papers for agents, who have the price of one machine, which means that anyone can become an agent if he has the price of a single machine less the discount. This plan will keep the Selden people pretty busy, since it is thought they cannot attack a private individual who has bought a machine in good faith. Of course, the patent will be fought, possibly by a combination, and a long, expensive legal tussle seems to be coming. It is my opinion that this Selden patent combine will not hurt the business, since it will undoubtedly keep a lot of sharks out of the automobile trade.

We have a good many peculiar organizations in New York city which are supposedly organized to look after the rights of the public. These organizations, so it is said by people who know them best, are usually composed of disappointed office-seekers, who would partake of the pap from the public treasury, if they could; but, failing to do so, organize themselves into committees of fifty, one hundred or one thousand.

Through the medium of an introduction by the well-known 43rd street automobile magnate, Sidney B. Bowman, I received an introduction to the main-spring of the New York Committee of Fifty the other day. This particular M. S. is a Mr. Backus, and a very fair sort of a man he is, too. Thirsting for information, I asked Mr. Backus what the particular game of the Committee of Fifty was. Answering, he said his semi-centennial aggregation aimed at regulating the speed of New York, keeping track of the differential gears, so to speak, of the people of this great village, since a village it is in more ways than one. I asked Mr. Backus what the police force was for and what are the laws the police are supposed to enforce? To this Mr. Backus replied that the police were only one more thing which wanted looking after, and the Committee of Fifty, which is managed by one or two of them, purposed keeping Police Commissioner Greene and his merry men on the jump from morning till night in future.



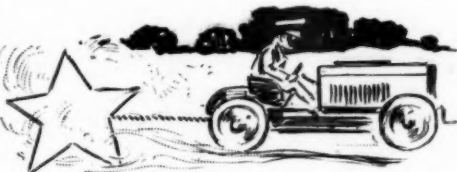
Mr. Backus did not agree with me, however, when I protested against any 12-mile limitation to the speed of automobiles, not even when I called his attention to the 25 and 30 miles an hour at which trolley cars proceeded through our streets carrying as non-protesting passengers Mr. Backus and his fellow semi-centennialites. Mr. Backus defended the trolley car, because he said they ran on strips of metal, and so the people knew where they ran and where to look out for them. Like a true reformer, Mr. Backus cheerfully overlooked the, to him, minor fact that people are killed almost daily by these same trolley flyers. I also called his attention to the fact that the majority of drivers of horse-drawn carriages in New York very greatly exceeded any 12 miles an hour. Incidentally I humbly remarked that class legislation such as was being dealt out to the automobile is the result of ignorance, and is born of the desire of some political shiners to toady to an element that votes even though it is incapable of thinking.

The desire for compromise on the part of certain people, who claim to represent the majority of automobilists, is not a good thing, no matter whether it is indulged in by an organization or by an individual. It has come to such a pass now that a general clamor has gone up from the envious, the unreasonable, and the far-from-wise people against the automobile, and this is a time to fight, not to compromise.

The anti-automobilists will not see that the motor vehicle will most surely become one of the greatest missionaries for the building of good roads and improved streets; that it will bring a blessed relief to the poor horse as a beast of burden, while as a means of transporting the masses cheaply and quickly into the suburbs and thereby affording relief to the congested cities and towns, nothing can compare with it. The automobilist is now treated as though he was a felon, and he is tagged and described as even no animal is, while he is deprived of even the privileges of an animal. All this may be good law, it may be an Odell popularity creator, it may be clever politics, but even so, I predict this Bailey law will lead to assault and riot, and possibly murder, since men will surely take that sort of a law into their own hands, and will defend themselves against such injustice as best they may.

Some jokes you can't see the point of and some points you can't see the joke of. This is particularly true in relation to tire punctures.

I am in receipt of a letter from Charles Jarrott, one of the star drivers of England, who has been selected as a member of the English team which is to defend the International Gordon Bennett Cup Race in Ireland, on July 2. Mr. Jarrott is one of the few really great drivers of Europe. His



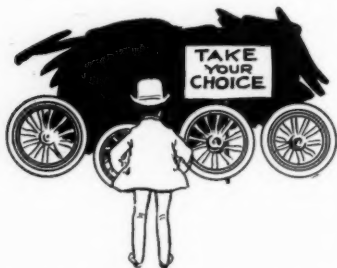
recent victories in the Bexhill Race, May 9, 1902, showed this, when he drove a heavy car at a speed of 83 kilometers an hour. Mr. Jarrott has also competed in the Paris-Vienna race, and in the Circuit du Nord, where he ran second to Maurice Farnen, after covering a distance of 922 kilometers. When he won the Circuit Des Ardenes 512 kilometer race in Belgium, July 1, 1902, Mr. Jarrott traveled the distance in 5 hrs. 33 min. and 39 $\frac{3}{4}$ sec. It was in this race that W. K. Vanderbilt, Jr., finished third, coming in nearly one hour after Mr. Jarrott did.

Mr. Jarrott writes me that he will be a competitor in the 1904, Florida winter race meet over the Ormond-Daytona course, on which occasion he will be seen either on a new Napier of immense H. P. or upon a special light racing De Dietrich car. He will be guided as to the choice of machines largely by my report of the track surface conditions on the beach. Mr. Jarrott, who is a regular reader of *THE AUTOMOBILE MAGAZINE*, in speaking of the Gordon Bennett Race, says:

"I thank you for your good opinion of me and what you say as regards my prospects in the forthcoming race. At the same time, I would point out that the chances and risks which have to be run in connection with such a race are so many that it is very difficult to pick out a winner, no matter how good the machine may be that the man you favor may be driving. That the Irish race will be a hard one I do not think permits of any question, since the course is not an easy one, and the fight will be continuous from start to finish without any let up. All this means an awful physical strain upon the drivers, and it will only be a man of iron who will keep good right through the race."

Mr. Jarrott says he will be in America this fall to meet any of America's drivers. Of course this means he will be agreeable to meet Barney Oldfield or any other American who may wish to tackle him.

It is my opinion that there will eventually be an increase in the diameter of the wheel fitted to automobiles. The small wheel has



had its vogue, and the 30 to 36-inch one will be the wheel of to-morrow.

There are to me good reasons why the larger wheel is the preferable one. A large wheel is undoubtedly an easier driving wheel, since it takes the uneven places better, and does not throw up as much dirt as does the small one. The large wheel also looks better, and when it comes

to starting it gives more traction. Further, the big wheel affords the user of it less trouble when it comes to driving it through mud.

Retribution seems to be following the New Jersey State authorities for their having recently passed so strenuous an automobile bill. The measure was framed and jammed through, not in response to any public clamor, but simply because some automobilists frightened a team of horses when it was being driven by the State's Governor, Franklin Murphy, at Long Branch, last summer. This high crime, added to the possibility that other automobilists may have frightened the teams of some of the Governor's friends, was enough, so the bill was drawn and jammed through by the Governor and his political henchmen. The first man to suffer from the bill becoming a law was very appropriately the very man who drew it, the then State Attorney-General, Thomas McCarter, who was arrested at the point of a pistol while traveling in his automobile through Madison, a village which has shown its hostility toward the automobile by permitting its constable to lie in wait for automobilists foolish enough to proceed through Madison. The Attorney-General was fined by the Judge, and did not seem to have any pull or standing in the matter since no apology or fine-remitting followed the discovery of who he was.

Now, Governor Murphy, who is particularly fond of horseback riding, has unfortunately come to grief through his mount being frightened by a railroad train, with the result that his gubernatorial importanceship was unceremoniously dumped into the street. If precedent counts for anything, it will now be in order for the Governor to introduce and jam through a bill which will compel all trains to be run noiselessly and not more swiftly than, say, fifteen miles per hour when passing through the State of New Jersey, and, having a politi-

cal majority at his back, and a new Attorney-General (a brother of the former one), the Governor can bring the railroad companies to time. But will he? The railroad companies are something of a political power themselves in the State of New Jersey, so perhaps the Governor will have to nurse, unsalved by any get-evenness, his wounds, but even so, he should buy a gentle, well-trained automobile to take his exercise in, as the world and New Jersey could ill afford to lose so intelligent and progressive a man as he.

After getting through with the elimination tests, such as they were, it would have been the correct thing for the Automobile Club of America to have placed the men and the machines they had selected to go to Europe to do battle for the United States in the charge of an advisory committee or a trainer, who would have seen to it that the men properly prepared themselves for the terrible strain which they will be called upon to undergo when they line up against the best riders Europe,—and that means the world—can produce. The Automobile Club of America should remember that this country has a right to expect that men who go abroad to do battle for its honor be not wanting in any respect, especially in physical condition. When a rowing club or association, or an athletic club or association sends representatives abroad they send them trained to the hour and in charge of trainers. Absolutely nothing of this kind has been thought of in connection with the American team, and I am afraid the race will tell the unwisdom of such neglect only too plainly.

This country can produce men equal, if not superior, to any other country, and it is not fair to the automobile industry, to the automobile fraternity, or to the country that any team which purports to be a representative one should go abroad without being in every possible way properly equipped to worthily represent a country which is without a peer when it comes to sport and its victories. America has the men—and they will yet be found and properly trained—concerning whom there will be no misgivings as to what will be the outcome of any contest in which they may engage. We must all hope for the best and trust that victory will perch on the banner of the present American team; but even so, I cannot shut my eyes to the fact that justice is not being done to this country,



and we may have to learn a lesson through bitter defeat; but another year will probably tell a different tale, and if we learn from the lesson that defeat came solely through the result of ignorance or mismanagement we will not have learned in vain.

E. J. Willis is selling a new spark gap intensifier. By the use of a glass tube fitted over the sparking points Mr. Willis makes a very safe intensifier. Mr. Willis says there is no small element of danger in using spark gaps which have no protection over the spark. For instance, he says, suppose you have a spark gap at work near a leaking gasoline tank,—and such tanks will leak sometimes, the result might be the same as if you lighted a match near the leaky tank. While there may not have been any accidents of this nature, they are liable to happen, so that the "E. J. Spark Gap" may be destined to become popular. Mr. Willis is building up a splendid business in automobile specialties and he has three floors filled with the very best automobile material in the way of sundries and parts for automobile construction.

Charles E. Miller, New York's pioneer automobile supply man, reports the demands for sundries and equipments for automobiles by those who have already bought, as well as those that are buying new machines, as something phenomenal. Mr. Miller keeps in stock everything that is required either in the building or the equipping of a machine, and is a direct importer of many choice sundries in the way of horns, baskets, lamps and other specialties that have made the French makers famous, and is thus placed in a position which enables him to keep in close touch with the buying public. So long as the demand for parts and equipments is on the increase, so long is the automobile trade absolutely safe from any setback unpleasant though a knowledge of this immensity may be to the money croakers whose predictions of coming decline in automobile demand are born of the desire to see the failure they predicate.

The organization of the Rapid Vehicle Company, which was recently advertised in the New York papers, does not seem to be growing very fast. The purpose of the company is to take over the Duryea Power Co. of Reading along with some other interests which the organizers hope to weld into one concern. There does not seem to be much confidence in the promotion and it is doubtful if it will succeed; but I would like to see it do so for the sake of Charles E. Duryea. The speculative public are not enthusiastic as yet over the prospective profits to be made out of automobile building and selling. Past experiences have been very costly to the would-be investors in automobile stock jobbing.

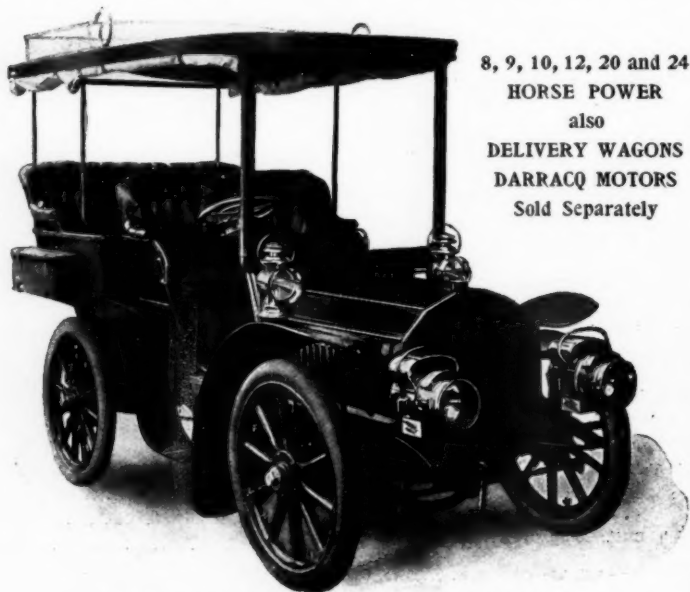
THE SENATOR.

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The Favorite of Two Continents. The Best by Test



8, 9, 10, 12, 20 and 24
HORSE POWER
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DELIVERY WAGONS
DARRACQ MOTORS
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in the Minneapolis
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made by this car.

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The Toledo Gasoline Touring Car

beat its nearest opponent (there were 28 of 'em) by sixteen seconds. Most automobiles will run on the level—but it takes a thoroughbred to climb hills ahead of 28 others. That's what the TOLEDO is. Beautiful in design and equipment. Roomy, carefully made, and meets every requirement of a first-class car.

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TOLEDO, O., U. S. A.

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Represent the highest development
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INDIANAPOLIS, IND.

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THE PAVEMENT FOR AUTOMOBILES

CREO-RESINATE WOOD BLOCKS

Have just been specified for the roadway of
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Contracts have also recently been awarded for 10,000 square yards of this paving in Brooklyn, N. Y., as well as for five bridges in Baltimore, Md., and others in Lowell, Mass.; Waltham, Mass.; Boston, Mass.; Utica, N. Y., and Rome, N. Y. Contracts for paving streets have just been let in Jamestown, N. Y.; Hartford, Conn., and elsewhere, and the material has been selected for the roadway of the new Erie ferryboats.

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The *Scientific American* says: "The plug appears to be one of the best solutions of the high-tension ignition problem that has as yet appeared upon the market."

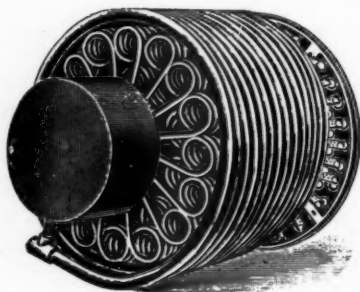
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The only boiler that cannot be burned out is the

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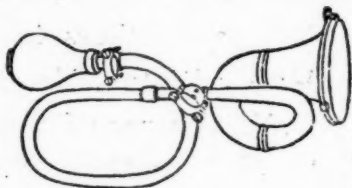


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TOURING CAR HORN



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Equal to the \$2500 Kind

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Replete with ingenious devices, ample power, long wheel base, 78 inches; artillery wheels and three-inch tires; oil tight gears and differential; strengthened in all parts to meet the increased power. There is no carriage offers such value at the price.

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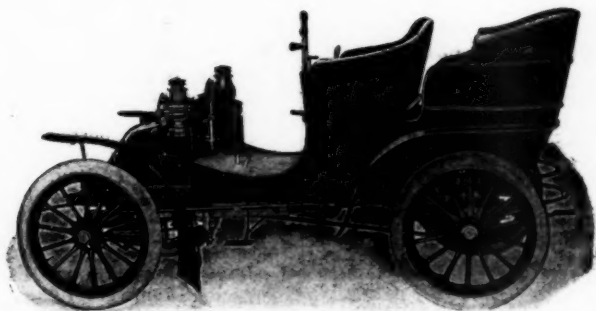
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Double cylinder vertical engine in front. French sliding gear transmission. 3 speeds and reverse.



CONRAD

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Our 8 H.P. Runabout costs but \$750

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MOTOR CARRIAGE CO.**

1413-1419 Niagara St.
BUFFALO, N. Y.

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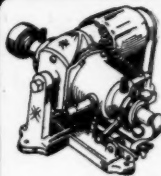
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Engines, Launches,
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Do away entirely with
ALL starting and running
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No belt—no switch—no batteries. Can be attached to any engine now using batteries. Fully guaranteed and costs less than 50 cents per year to operate. Write for descriptive booklet and testimonials.

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A complete and practical handbook
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LIGHT IN WEIGHT. FREE FROM NOISE, ODOR
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IT HAPPILY FULFILLS THE PLEASURE
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FOR 1903

Next to Flying

... is the motion of the incomparable WHITE—smooth, noiseless and free from all motor vibrations—a swift, gliding movement that affords the maximum of automobiling pleasure, minus its every defect.

Write for full particulars, experts' reports and official results of important endurance contests.

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DON'T BE ROBBED

any longer. Send for my 168 page catalogue of Automobile Supplies. Auto Tires from \$6.00 up.

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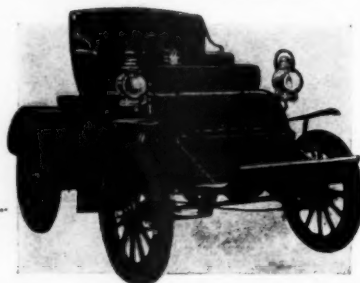
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INVESTIGATE THE UNION

WITH

Friction Transmission



RESULTS COUNT AND
WE HAVE THEM

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OF UP-TO-DATE AUTOMOBILES

the first ELECTRO GALVANIZED by our own process, then nickel-plated

INSURING ABSOLUTE PROTECTION

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